

REVISION OF AUSTRALIAN LEPIDOPTERA.

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II.

As a second instalment, I have taken one of the families of the *Geometrina*; and have also added in a supplement such species belonging to the families described in my first paper, as have since come to hand.

GEOMETRIDAE.

Forewings with veins 7 and 8 rising out of 9, 10 generally out of 9, 5 remote from and parallel to 4. Hindwings with vein 5 present, 8 anastomosing with or appressed or closely approximated to upper margin of cell near base only.

I have included together the two groups which I formerly separated as *Geometridae* and *Acidaliadae*, this course being rendered necessary by the discovery of structural forms which leave no reliable point of distinction. The family, as it stands, is certainly natural, and, I hope, sufficiently defined.

The following is a tabulation of the Australian genera:—

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| 1. Forewings with vein 10 rising separate | 2. |
| Forewings with vein 10 rising out of 9 | 3. |
| 2. Antennæ in ♂ bipectinated | 11. <i>Heliomystis</i> . |
| Antennæ in ♂ not bipectinated | 3. <i>Dithalama</i> . |
| 3. Antennæ in ♂ bipectinated | 4. |
| Antennæ in ♂ not bipectinated | 12. |
| 4. Antennal pectinations terminating in long
tufts of cilia..... | 2. <i>Problepsis</i> . |
| Antennal pectinations not terminating in long
tufts of cilia..... | 5. |

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| 5. Forewings with vein 11 rising out of 9 | 6. |
| Forewings with vein 11 rising separate | 7. |
| 6. Forewings with vein 6 rising out of 9..... | 8. <i>Comostola</i> . |
| Forewings with vein 6 widely remote..... | 1. <i>Perixera</i> , a. |
| 7. Posterior tibiæ in ♂ without middle-spurs ... | 8. |
| Posterior tibiæ in ♂ with middle-spurs | 10. |
| 8. Terminal joint of palpi extremely long | 1. <i>Perixera</i> , b. |
| Terminal joint of palpi short or moderate ... | 9. |
| 9. Forewings with vein 11 anastomosing with 10 ... | 12. <i>Crypsiphona</i> . |
| Forewings with vein 11 not anastomosing
with 10..... | 7. <i>Eucrostis</i> . |
| 10. Forewings with vein 11 connected with 9
only, below 10 | 5. <i>Timandra</i> . |
| Forewings with vein 11 not connected with
9 only, below 10 | 11. |
| 11. Hindwings with veins 6 and 7 stalked, palpi
smooth above | 9. <i>Iodis</i> . |
| Hindwings with veins 6 and 7 separate
(rarely stalked), palpi rough | 13. <i>Hypochroma</i> . |
| 12. Posterior tibiæ of ♂ without middle-spurs ... | 4. <i>Acidalia</i> . |
| Posterior tibiæ of ♂ with middle-spurs | 13. |
| 13. Hindwings with veins 6 and 7 separate | 14. <i>Epipristis</i> . |
| Hindwings with veins 6 and 7 from a point or
stalked | 14. |
| 14. Antennæ in ♂ biciliated with fascicles | 6. <i>Urolitha</i> . |
| Antennæ in ♂ very minutely unciliated..... | 10. <i>Agathia</i> . |

In the following specific descriptions the fillet is the more or less raised transverse band between the antennæ.

1. PERIXERA, MEYR.

Face smooth. Palpi moderately or very long, porrected, second joint moderate or long, rough-scaled above towards base, otherwise smooth, terminal joint long, slender, filiform, obliquely drooping. Antennæ in ♂ strongly bipectinated, towards apex

filiform, in ♀ somewhat thickened with scales towards base. Posterior femora in ♂ with dense brush of long hairs above, tibiae in ♂ with median spurs absent, in ♀ all spurs present. Forewings with vein 6 widely remote from 9, 10 out of 9, 11 anastomosing with or rising out of 9 above 7. Hindwings with veins 3 and 4 from a point or closely approximated, 6 and 7 separate or short-stalked.

Besides the following, I have described two species from the South Pacific islands; although closely allied to the Australian, these differ in the less remarkably elongate palpi, and in vein 11 of the forewings rising out of 9, instead of rising separately and anastomosing with it: but there can be no question of their generic identity.

1. *Per. porphyropis*, n. sp.

♀. 29-32 mm. Head, palpi, antennae, thorax, abdomen, and legs whitish-ochreous; upper half of face fuscous-crimson; palpi very long, fuscous-crimson above; abdomen with two blackish dorsal dots towards base, two fuscous-crimson dots towards middle; anterior and middle legs fuscous-crimson above. Forewings with costa slightly arched, hindmargin slightly sinuate beneath apex, rather obliquely rounded, waved; vein 11 anastomosing with 9; whitish-ochreous, irregularly irrorated with pale greyish-ochreous; a black basal dot, two beneath costa at $\frac{1}{6}$ and $\frac{1}{4}$, and one above inner margin at $\frac{1}{4}$; a very small dark reddish-fuscous discal spot; a somewhat curved series of blackish dots on veins from $\frac{4}{5}$ of costa to $\frac{3}{4}$ of inner margin, sinuate above middle; a very small blackish spot beneath costa towards apex, and two others above middle, followed by a blackish mark before hindmargin; a hindmarginal series of black dots: cilia whitish-ochreous, with a basal row of fuscous-crimson dots. Hindwings with hindmargin somewhat rounded, crenulate; veins 3 and 4 from a point, 6 and 7 short-stalked; colour and markings as in forewings, but no anterior black dots except one below middle towards base, discal spot moderate, deep ferruginous, containing

a blackish ring, centre purplish; a square patch on anal angle suffusedly spotted with blackish, purplish-tinged.

Var. *a*. All blackish dots changed to fuscous, indistinct; all blackish spots absent.

Newcastle and Sydney, New South Wales; in December, April, and May, three specimens.

2. PROBLEPSIS, Ld.

Face smooth. Palpi short, porrected or subascending, slender, with appressed scales, or somewhat rough beneath, terminal joint short. Antennæ in ♂ shortly bipectinated ($1\frac{1}{2}$), pectinations terminating in long fascicles of cilia ($2\frac{1}{2}$ -3). Thorax with a few hairs beneath. Posterior tibiæ in ♂ compressed, without spurs, in ♀ all spurs present; posterior tarsi in ♂ strongly abbreviated. Forewings with veins 3 and 4 separate, 6 remote, 10 out of 9 below 8, 11 connected with 9 at a point below 7. Hindwings with veins 3 and 4 separate, 6 and 7 separate.

A small but widely distributed genus, occurring in the South Pacific islands, Malay Archipelago, India, Africa, and South Europe. On a critical examination of the structural characters, I think *Trichoclada*, Meyr., should be sunk as a synonym of this genus, although the species on which it was founded shows no trace of the characteristic silvery-metallic discal markings.

2. *Probl. apollinaria*, Gn.

(*Argyris apollinaria* (rect. *apollinaria*), Gn. x, 13.)

♀. 41 mm. Head, palpi, antennæ, thorax, abdomen, and legs white; palpi blackish above; antennæ greyish above. Forewings with costa posteriorly moderately arched, hindmargin obliquely rounded; white; costa narrowly grey from base to $\frac{3}{4}$; a large silvery-metallic circular ring in middle of disc, filled with grey and silvery scales, posterior edge margined by a black lunule, followed by a much larger pale brownish-ochreous lunule; a pale

ochreous-tinged shade, irregularly margined with silvery-metallic, from discal ring to inner margin beyond middle; a pale ochreous-tinged outwards-curved shade from $\frac{2}{3}$ of costa to beyond $\frac{3}{4}$ of inner margin; a row of confluent semicircular grey spots beyond and parallel to this; a faint grey line between these and hindmargin; a grey hindmarginal line: cilia white, with two faint greyish lines. Hindwings with hindmargin rounded; white; a straight grey median shade; a long transverse-oval irregular silvery-metallic ring lying partly on this in disc, containing a short yellow-ochreous transverse mark in upper half; posterior markings and cilia as in forewings.

Townsville, Queensland; one specimen (Coll. Masters). Also from Borneo.

3. *Probl. sancta*, n. sp.

♂♀. 25-29 mm. Head blackish on crown, upper half of face ferruginous, lower half and collar white. Palpi pale ferruginous. Antennæ whitish-ochreous, in ♂ pale ferruginous beneath. Thorax and abdomen white. Legs white, anterior pair light ferruginous above, middle pair ferruginous-tinged. Forewings with costa gently arched, hindmargin rather obliquely rounded; snow-white; a transverse suboval blotch in middle of disc, narrowed beneath, consisting of a yellow-ochreous outer ring, an iridescent silvery-metallic inner ring becoming black above, and a white centre; a very faint pale ochreous or greyish-tinged shade from this blotch to middle of inner margin; a faint curved whitish-ochreous line from $\frac{2}{3}$ of costa to $\frac{3}{4}$ of inner margin; a series of pale grey spots near beyond this, not reaching costa; a very faint greyish submarginal line on lower half: cilia snow-white. Hindwings with hindmargin rounded; white; a narrow transverse elongate-oval ochreous-yellowish discal spot, margined with iridescent silvery-metallic; posterior markings as in forewings, but submarginal grey line more distinct and extended further towards costa; cilia white.

Duaranga, Gayndah, and Rosewood, Queensland; in December, several specimens.

3. DITHALAMA, n. g.

Face smooth. Palpi short, porrected or ascending, with appressed scales, somewhat rough beneath, terminal joint short. Antennæ in ♂ dentate, ciliated with fascicles ($1\frac{1}{2}$). Thorax smooth beneath. Abdomen in ♂ with pencil of long hairs from base beneath. Posterior tibiæ in ♂ flattened, distorted, without spurs, in ♀ all spurs present; posterior tarsi in ♂ much aborted. Forewings with veins 3 and 4 separate, 6 remote, 10 anastomosing with 9 above 7, 11 anastomosing with 10 before 9. Hindwings with veins 3 and 4 separate, 6 and 7 stalked.

4. *Dith. cosmospila*, n. sp.

♂♀. 23-24 mm. Head rather dark fuscous, collar and lower margin of face whitish. Palpi fuscous, beneath whitish. Antennæ whitish or grey. Thorax whitish, with an obscure brownish-ochreous bar behind middle. Abdomen grey mixed with ferruginous, segmental margins white. Legs whitish, anterior pair infuscated. Forewings with costa posteriorly moderately arched, hindmargin bowed, oblique; very pale greyish-ochreous; basal area suffused with pale reddish-ochreous except towards costa; lines slender, ferruginous mixed with black; first from beneath costa at $\frac{2}{5}$ to $\frac{2}{5}$ of inner margin, curved outwards above middle, sinuate inwards below middle; a transverse linear fuscous discal spot, followed by a suffused white patch; second line from beneath costa at $\frac{4}{5}$ to $\frac{3}{4}$ of inner margin, rather irregularly dentate, preceded by a whitish suffusion towards costa and inner margin; an irregular dentate-edged narrow fascia-like ferruginous blotch, more or less mixed with black, close beyond second line, extending from rather near costa to below middle, margined by whitish lines which are confluent beneath and continued to inner margin; an interrupted blackish hindmarginal line: cilia very pale greyish-ochreous. Hindwings with hindmargin rounded; ground colour, discal spot, posterior markings, and cilia as in forewings, but

second line angulated towards costa, ferruginous fascia extended to inner margin.

Newcastle and Sydney, New South Wales ; in September and October, not uncommon, appearing to frequent *Eucalyptus*.

4. ACIDALIA, Tr.

Face smooth. Palpi moderate or short, loosely rough-scaled or filiform, porrected or subascending, terminal joint short. Antennae in ♂ filiform or dentate, ciliated. Posterior tibiae in ♂ often dilated, without spurs or with end-spurs only, in ♀ with all spurs present or sometimes with middle-spurs absent, posterior tarsi in ♂ more or less aborted or rarely well-developed, Forewings with veins 3 and 4 separate, 6 remote from 9, 10 out of 9 below 8, 11 connected by bar or anastomosing with 9. Hindwings with veins 3 and 4 remote, 6 and 7 stalked or separate.

A very large genus, cosmopolitan except for New Zealand, where there is only one Australian species. The species are small, inconspicuous, and often extremely similar, requiring very careful examination. In the following specific descriptions five transverse lines are referred to as normally present ; the first, median, second, subterminal, and submarginal. The length of the posterior tarsi of the ♂ is stated in terms of the length of the tibiae. The palpi are often very variable in colour, and in direction also, within the limits of the same species ; apparently no stress should be laid upon them in this genus.

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| 1. Posterior tibiae of ♂ with terminal spurs ... | 2. |
| Posterior tibiae of ♂ wholly without spurs... | 4. |
| 2. Thorax suffused with dark grey..... | 30. <i>episcia</i> . |
| Thorax ochreous-whitish | 3. |
| 3. Discal dot minute, second line straight | 28. <i>orthoscia</i> . |
| Discal dot large, second line subsinuate ... | 29. <i>megalocentra</i> . |
| 4. Cilia with two well-defined dark lines | 25. <i>crossophragma</i> |
| Cilia without two lines | 5. |

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| 5. Face ochreous or reddish | 6. |
| Face blackish | 9. |
| 6. Fillet white | 14. <i>chloristis</i> . |
| Fillet ochreous or reddish | 7. |
| 7. Forewings sprinkled with black | 8. |
| Forewings not sprinkled with black | 15. <i>neoxesta</i> . |
| 8. Wings pale reddish-ochreous | 18. <i>rubraria</i> . |
| Wings fuscous or whitish-ochreous | 17. <i>lydia</i> . |
| 9. Hindwings with hindmargin angulated, with
slight median projection | 10. |
| Hindwings with hindmargin not angulated,
without projection | 11. |
| 10. Median line distinct | 26. <i>perlata</i> . |
| Median line absent | 27. <i>ligataria</i> . |
| 11. Wings with groundcolour snow-white | 5. <i>innocens</i> . |
| Wings with groundcolour not white | 12. |
| 12. Posterior tibiæ in ♂ very short, in ♀ with
middle-spurs absent | 13. |
| Posterior tibiæ in ♂ well-developed, in ♀
with middle-spurs present | 19. |
| 13. Forewings with a paler costal streak | 14. |
| Forewings without a paler costal streak | 15. |
| 14. Posterior tarsi in ♂ obsolete | 6. <i>albicostata</i> . |
| Posterior tarsi in ♂ as long as tibiæ | 7. <i>isomorpha</i> . |
| 15. Wings reddish-tinged | 16. |
| Wings not reddish-tinged | 17. |
| 16. Fillet ochreous-white | 10. <i>alopecodes</i> . |
| Fillet ferruginous | 9. <i>halmaea</i> . |
| 17. Median line of forewings nearly obsolete | 12. <i>pseliota</i> . |
| Median line of forewings well-marked | 18. |
| 18. Forewings with distinct discal dot | 11. <i>pachydetis</i> . |
| Forewings without distinct discal dot | 8. <i>philocosma</i> . |
| 19. Forewings with a fuscous-reddish hindmarginal
band | 19. <i>caesaria</i> . |
| Forewings without a fuscous-reddish hind-
marginal band | 20. |

20. Forewings with a straight fuscous streak from apex to before middle of inner margin 16. *desita*.
 Forewings without such streak 21.
21. Second line marked with distinct black dots 24. *sublinearia*
 Second line not marked with distinct black dots 22.
22. Cilia sprinkled with black towards base..... 23.
 Cilia not sprinkled with black towards base 24.
23. Forewings with median line angularly indented below middle 13. *hypochra*.
 Forewings with median line not angularly indented below middle 21. *axiotis*.
24. Posterior tarsi in ♂ $\frac{2}{3}$ of tibiæ..... 20. *liotis*.
 Posterior tarsi in ♂ $\frac{1}{3}$ of tibiæ..... 25.
25. Median line strongly marked 22. *recessata*.
 Median line very faint..... 23. *optivata*.

Sect. A. Posterior tibiæ of ♂ without spurs.

Subsect. *a*. Posterior tibiæ of ♂ short, subaborted, of ♀ without middle-spurs.

5. *Ac. innocens*, Butl.

(*Idea innocens*, Butl., Trans. Ent. Soc. Lond., 1886, 436.)

♂♀. 15-17 mm. Head white on crown, face blackish-fuscous. Papi whitish, mixed with dark fuscous. Antennæ white, in ♂ filiform, ciliations $1\frac{1}{2}$. Thorax white. Abdomen white, base of segments dark fuscous. Legs white, anterior pair infuscated, posterior tibiæ in ♂ scarcely dilated, tarsi well-developed, longer than tibiæ (posterior legs in ♀ broken). Forewings with costa straight, posteriorly slightly arched, hind margin obliquely rounded; white, with a few fine dark fuscous scales towards base; costal edge sometimes pale fuscous; first and second lines pale fuscous, very indistinct, marked with minute black dots on veins, first from $\frac{1}{3}$ of costa to $\frac{2}{5}$ of inner margin, curved, second from $\frac{3}{4}$ of costa to $\frac{3}{4}$ of inner margin, sinuate above and below middle;

median line from $\frac{2}{3}$ of costa to middle of inner margin, indistinct, pale fuscous, twice sinuate, marked with a black discal dot on its anterior edge; subterminal forming a narrow dark fuscous fascia, somewhat suffused anteriorly, nearly obsolete on costa, sinuate inwards above middle and above anal angle; submarginal cloudy, dark fuscous, not reaching costa or inner margin; an interrupted black hindmarginal line: cilia white, basal $\frac{2}{3}$ irrorated with dark fuscous. Hindwings with hindmargin rounded; veins 6 and 7 from a point or short-stalked; colour and markings as in forewings, but first line absent, discal dot placed beyond median, subterminal fascia reduced to a cloudy line, paler and often obsolete except towards costa, submarginal very indistinct or obsolete except on costa, dark irroration of cilia much scantier or absent except round apex.

Duringa, Queensland; sent commonly by Mr. G. Barnard; very distinct from any other Australian species.

6. *Ac. albicostata*, Walk.

(*Acidalia albicostata*, Walk. 779; *A. costaria*, ib. 1610.)

♂♀. 14-17 mm. Head blackish, fillet generally ochreous-white. Palpi dark fuscous, beneath whitish. Antennæ grey or whitish, in ♂ subdentate, ciliations $1\frac{1}{2}$. Thorax greyish-ochreous, light grey, or purplish-grey, anterior margin broadly ochreous-whitish. Abdomen light grey, sometimes purplish-tinged. Legs ochreous-whitish, anterior pair greyish, posterior tibiæ in ♂ short, slightly compressed, without spurs, in ♀ with middle-spurs absent, posterior tarsi in ♂ obsolete. Forewings with costa straight, posteriorly somewhat arched, hindmargin oblique, scarcely rounded; pale grey, densely irrorated with purple or slaty-grey; a moderate ochreous-white streak along costa from base to $\frac{5}{6}$; lines grey, not crossing costal streak; first at $\frac{2}{6}$, sinuate; median slender, twice sinuate, preceded by a grey discal dot; second at $\frac{3}{4}$, twice sinuate, denticulate, marked with darker grey dots; subterminal and submarginal waved; sometimes an interrupted

dark grey hindmarginal line : cilia purplish or pale grey, terminal half grey-whitish, purplish-tinged. Hindwings with hindmargin rounded ; veins 6 and 7 stalked ; colour and markings as in forewings, but first line and discal dot absent.

Duaringa, Queensland ; Glen Innes (3500 feet), Bathurst, Sydney, and Mount Kosciusko (3700 feet), New South Wales ; Launceston and Deloraine, Tasmania ; from September to March, common.

7. *Ac. isomorpha*, n. sp.

♂. 16 mm. Differs from *A. albicostata* only as follows : antennæ filiform, ciliations 1 ; posterior tibiæ very short, tarsi as long as tibiæ ; wings greyer, with a pale postmedian band, second line consisting of a series of black dots, subterminal forming a narrow grey fascia ; cilia whitish, with an obscure grey line ; vein 11 of forewings anastomosing strongly with 9.

Mount Lofty, South Australia ; one specimen sent by Mr. E Guest.

8 *Ac. philocosma*, n. sp.

♂♀. 17-18 mm. Head whitish-ochreous, fillet ochreous-white, face blackish. Palpi ochreous-whitish, sometimes suffused with blackish. Antennæ whitish, in ♂ filiform, ciliations $\frac{3}{4}$. Thorax and abdomen pale whitish-ochreous. Legs fuscous, posterior pair ochreous-whitish, posterior tibiæ in ♂ very short, without spurs, in ♀ with middle-spurs absent, posterior tarsi in ♂ as long as tibiæ. Forewings with costa posteriorly moderately arched, hindmargin slightly rounded, oblique ; pale whitish-ochreous, more greyish-ochreous towards base and costa ; first line indicated by two or three blackish dots on veins ; median from $\frac{2}{5}$ of costa to middle of hindmargin, scarcely darker, dotted with black on veins, twice sinuate ; second somewhat darker, similar and parallel ; sub-terminal and submarginal cloudy, rather broad, greyish-ochreous, waved ; a widely interrupted black hindmarginal line : cilia pale whitish-ochreous. Hindwings with hindmargin rounded ; veins 6

and 7 stalked; colour and markings as in forewings, but first line not indicated, median nearer base; a tolerably distinct dark grey discal dot beyond median.

Sydney and Blackheath (3500 feet), New South Wales; George's Bay, Tasmania; from October to February, not uncommon.

9. *Ac. halmaea*, n. sp.

♂♀. 14-16 mm. Head ferruginous, face blackish. Palpi dark fuscous, beneath whitish-ochreous. Antennæ whitish-ochreous, in ♂ filiform, ciliations almost 2. Thorax and abdomen whitish-ochreous, slightly reddish-tinged. Legs whitish-ochreous, anterior pair infuscated, posterior tibiæ in ♂ very short, without spurs, in ♀ with middle-spurs absent, posterior tarsi in ♂ $\frac{2}{3}$ of tibiæ. Forewings with costa posteriorly moderately arched, hindmargin oblique, slightly rounded; whitish-ochreous, slightly reddish-tinged; first and second lines represented by series of blackish dots on veins; first at $\frac{1}{3}$, somewhat curved; second from $\frac{3}{4}$ of costa to $\frac{4}{5}$ of inner margin, twice sinuate; median indistinct, slender, twice sinuate, grey or fuscous-reddish, sometimes obscurely dotted with dark grey on veins; subterminal and submarginal slender, pale grey-reddish, irregularly waved, confluent on anal angle; an interrupted blackish hindmarginal line: cilia whitish-ochreous, basal half reddish-tinged. Hindwings with hindmargin rounded; veins 6 and 7 stalked; colour and markings as in forewings, but first line represented by a single dot on median vein; a more or less distinct fuscous-reddish transverse linear discal mark beyond median line.

Sydney, New South Wales; Hobart, Tasmania; in October and November, several specimens.

10. *Ac. alopecodes*, n. sp.

♀. 14 mm. Head ochreous on crown, fillet broadly ochreous-white, face dark fuscous. Palpi rough-scaled beneath, whitish-ochreous, tinged with reddish-ochreous. Antennæ white. Thorax

and abdomen ochreous, mixed with ochreous-whitish. Legs whitish-ochreous, posterior tibiae with middle-spurs absent. Forewings with costa straight, posteriorly slightly arched, hind margin somewhat bowed, very oblique; pale whitish-ochreous, sprinkled with ochreous-fuscous; basal $\frac{2}{5}$ suffused with yellow-ochreous, irrorated with fuscous; median indistinct, straight, fuscous, suffused with yellow-ochreous from $\frac{2}{5}$ of costa to middle of inner margin; an obscure grey discal dot on this; second line well defined, fuscous, almost straight, from $\frac{4}{5}$ of costa to $\frac{3}{4}$ of inner margin; subterminal very indistinct, fuscous; an interrupted dark fuscous hind marginal line: cilia whitish-ochreous, suffused with dark fuscous except at base and apex. Hindwings narrow, apex broadly rounded, hindmargin appearing almost straight (in reality the apparent anal angle is formed by an obtuse bend of the hindmargin on vein 3, the lower part of hindmargin being almost continuous with the very short inner margin, the true anal angle almost obsolete); veins 6 and 7 stalked; pale whitish-ochreous, posteriorly sprinkled with fuscous; median, second, and subterminal lines fuscous-grey, indistinct, parallel to apparent hindmargin, median marked with a cloudy dark fuscous discal dot; cilia pale whitish-ochreous, obscurely dotted with fuscous.

Geraldton, West Australia; one specimen in November.

11. *Ac. pachydetis*, n. sp.

♂. 15 mm. Head ochreous-whitish, face blackish. Palpi ochreous-whitish, apex blackish. Antennae whitish, serrate, ciliations 2. Thorax, abdomen, and legs ochreous-whitish; anterior legs infuscated, posterior tibiae very short, loosely short-haired above, tarsi $\frac{1}{3}$. Forewings with costa slightly arched, hindmargin bowed, oblique; ochreous-whitish, with a few scattered black scales; lines cloudy, rather dark grey, irrorated with black; first hardly traceable; median almost straight, from beyond middle of costa to middle of inner margin, closely followed by a black discal dot; second from $\frac{3}{4}$ of costa to $\frac{3}{4}$ of inner margin, slightly waved, somewhat curved, sinuate inwards above inner margin;

subterminal close and parallel to second, slightly diverging on costa; submarginal paler; an interrupted black hindmarginal line: cilia ochreous-whitish, with a cloudy grey interrupted median line. Hind wings with hindmargin rounded, much bent obtusely between veins 3 and 4, inner margin short; veins 6 and 7 stalked; colour and markings as in forewings, but median line nearer base, posterior lines more curved.

Perth, West Australia; one specimen in November.

12. *Ac. pseliota*, n. sp.

♀. 19 mm. Head, palpi, antennae, thorax, abdomen, and legs ochreous-whitish; face rather dark fuscous; posterior tibiae with middle-spurs absent. Forewings with costa posteriorly somewhat arched, hindmargin slightly bowed, oblique; ochreous-whitish; first line dark grey, irregularly dentate, not reaching costa, preceded by a parallel series of dark grey spots; median hardly traceable, indicated by faint grey dots on veins, preceded by a dark grey discal dot; second line irregular, slightly waved, dark grey, from $\frac{3}{4}$ of costa to $\frac{3}{4}$ of inner margin, rather strongly sinuate above middle and above inner margin; subterminal forming a series of dark grey spots near and parallel to this; submarginal hardly traceable except on costa, where it is dark grey; a hindmarginal series of blackish marks: cilia ochreous-whitish (imperfect). Hindwings with hindmargin rounded; veins 6 and 7 stalked; colour and markings as in forewings, but first line and preceding spots absent, discal dot absent, median line more distinctly dotted, submarginal more distinctly indicated.

Victoria; one specimen (Coll. Lucas).

Subsect. *b*. Posterior tibiae of ♂ moderate, dilated, of ♀ with all spurs.

13. *Ac. hypochra*, n. sp.

♂. 16-17 mm. Head whitish-ochreous, face blackish. Palpi blackish, beneath whitish-ochreous. Antennae whitish, serrate, ciliations $2\frac{1}{2}$. Thorax and abdomen whitish-ochreous, sprinkled

with black, base of segments brownish-tinged. Legs ochreous-whitish, anterior pair infuscated; posterior tibiae rather short, dilated, rough-scaled above, with long pencil of hairs from base lying on inner side, without spurs, tarsi as long as tibiae. Forewings with costa posteriorly somewhat arched, hindmargin somewhat rounded, oblique; pale brownish-ochreous or whitish-ochreous, slightly reddish-tinged, sprinkled with black; lines slender grey; first from $\frac{1}{3}$ of costa to $\frac{1}{4}$ of inner margin, indistinct, hardly curved; median from $\frac{2}{3}$ of costa to middle of inner margin, rather angularly indented below middle, preceded by a small black discal dot; second line from $\frac{1}{2}$ of costa to $\frac{3}{4}$ of inner margin, slightly waved, twice faintly sinuate, obscurely dotted with darker on veins; subterminal and submarginal cloudy; a hindmarginal series of black dots: cilia whitish-ochreous, slightly reddish-tinged, basal half sprinkled with black. Hindwings with hindmargin rounded; veins 6 and 7 from a point; colour and markings as in forewings, but first line absent, median nearer base, hardly indented, discal dot larger, beyond median line.

Duaringa, Queensland; Sydney, New South Wales; Mount Lofty, South Australia; in June, several specimens.

14. *Ac. chloristis*, n. sp.

♂. 15-16 mm. Head brownish-ochreous, fillet white. Palpi whitish-ochreous. Antennae ochreous-whitish, serrate, ciliations 2. Thorax white, anterior margin slenderly pale ochreous. Abdomen white. Legs white, anterior pair fuscous, posterior tibiae dilated, rough-scaled above, with long dense pencil of hairs from base lying on inner side, without spurs, tarsi $\frac{1}{3}$. Forewings with costa hardly arched, hindmargin slightly rounded, oblique; white, sometimes partially sprinkled with whitish-ochreous, and with a few black scales; costa narrowly ochreous; lines light ochreous, thick, well-defined, denticulate; first from $\frac{2}{5}$ of costa to $\frac{1}{3}$ of inner margin, somewhat sinuate below middle; median from beyond middle of costa to middle of inner margin, sinuate inwards above and below middle, followed closely by a very minute black discal

dot ; second from $\frac{3}{4}$ of costa to $\frac{2}{3}$ of inner margin, slightly sinuate above inner margin ; subterminal tending to be interrupted into spots ; submarginal partly touching hindmargin ; a fine ochreous hindmarginal line : cilia pale whitish-ochreous. Hindwings with hindmargin rounded ; veins 6 and 7 stalked ; colour and markings as in forewings, but first line and discal dot obsolete, median straighter, second line more sinuate.

Queensland ; two specimens (Coll. Lucas).

15. *Ac. neoxesta*, n. sp.

♂. 29 mm. Head light ochreous on crown, fillet ferruginous, face ferruginous-whitish, forehead ferruginous. Palpi blackish, beneath whitish. Antennæ ochreous-whitish, dentate, ciliations $1\frac{1}{2}$. Thorax, abdomen, and legs ochreous-whitish, posterior tibiae dilated, rough-scaled above, with long dense pencil of hairs from base lying on inner side, without spurs, tarsi $\frac{3}{4}$. Forewings with costa moderately arched, hindmargin bowed, rather oblique ; very pale whitish-ochreous ; lines very faint, cloudy, hardly darker ; first obsolete ; a minute black discal dot, before median ; median from beyond middle of costa to beyond middle of inner margin, slightly curved, rather strongly sinuate outwards above and below middle ; second from before $\frac{3}{4}$ of costa to $\frac{3}{4}$ of inner margin, similar and parallel to median ; subterminal and submarginal suffused, hardly traceable ; an ochreous hindmarginal line : cilia pale whitish-ochreous. Hindwings with hindmargin rounded ; veins 6 and 7 separate ; colour and markings as in forewings, but median line obsolete.

Duarina, Queensland ; one specimen received from Mr. G. Barnard.

16. *Ac. desita*, Walk.

(*Tephrosia desita*, Walk. 421.)

♂♀. 19-20 mm. Head black, fillet white. Palpi blackish, beneath white. Antennæ grey-whitish, in ♂ dentate, ciliations 2. Thorax whitish, sometimes sprinkled with black. Abdomen

white, sprinkled with black, segments with more or less distinct brownish median rings, in ♂ laterally tufted beyond middle, and with a circular lateral orifice at base. Legs grey, posterior pair whitish, posterior tibiae in ♂ moderate, dilated, clothed with dense rough hairs above, and with an expansible pencil of hairs in groove beneath, in ♀ with all spurs present, posterior tarsi in ♂ $\frac{1}{2}$. Forewings with costa posteriorly moderately arched, hindmargin somewhat bowed, rather oblique; white, irrorated with pale whitish-fuscous, and sprinkled with black; generally a short oblique linear black mark in disc before middle, representing first line; a black discal dot, much before median line; median absorbed in a straight fuscous streak from apex of wing to before middle of inner margin, mixed with black towards apex; second line slender, black, dentate, more or less interrupted between dentations, from $\frac{3}{4}$ of costa to $\frac{2}{3}$ of inner margin, curved outwards, above middle sharply indented inwards; subterminal cloudy, light fuscous, near and parallel to second; submarginal light fuscous, waved; an interrupted light fuscous hindmarginal line, marked with a series of black dots: cilia white, on basal half sprinkled with black, and obscurely barred with pale whitish-grey. Hindwings with hindmargin rounded, waved; veins 6 and 7 from a point; white, irrorated with pale whitish-fuscous and sprinkled with black; median straight, light fuscous, followed by a black discal dot; second line slender, blackish, nearly straight, twice somewhat sinuate on upper half; subterminal thick, cloudy, light fuscous, near and parallel to second; submarginal and hindmarginal lines, and cilia as in forewings.

Duaringa and Toowoomba (2000 feet), Queensland; Sydney, New South Wales; in December, April, and June, not uncommon.

17. *Ac. lydia*, Butl.

(*Idaea lydia*, Butl., Trans. Ent. Soc. Lond. 1886, 435;

I. jessica, ib. 436.)

♂. 16-18 mm. Head greyish-ochreous. Palpi ochreous-whitish, towards apex greyish-ochreous. Antennæ whitish, dentate,

ciliations 3. Thorax and abdomen light fuscous, mixed with pale greyish ochreous. Legs grey, posterior pair whitish, posterior tibiæ rather short, dilated, rough-scaled above, without spurs, tarsi about $\frac{3}{4}$. Forewings with costa gently arched, hindmargin slightly rounded, oblique; fuscous, suffusedly sprinkled with light greyish ochreous; lines scarcely darker, placed as in ♀ but hardly traceable: cilia fuscous, sprinkled with pale greyish-ochreous, tips paler. Hindwings with hindmargin rounded, waved; veins 6 and 7 stalked; colour and markings as in forewings.

♀. 17-19 mm. Head, palpi, antennæ, thorax, abdomen, and legs pale whitish-ochreous, posterior tibiæ with all spurs present. Forewings formed as in ♂; pale whitish-ochreous, sprinkled with black, towards base slightly brownish-tinged; first line greyish-ochreous, very indistinct; median from beyond middle of costa to middle of inner margin, very faint, straight, marked with a very small black discal dot; second from $\frac{3}{4}$ of costa to before $\frac{3}{4}$ of inner margin, nearly straight, rather thick, greyish-ochreous, posterior edge most defined; subterminal cloudy, indistinct, pale greyish-ochreous; submarginal similar, more slender; a hindmarginal row of blackish dots, tending to form an interrupted line: cilia pale whitish-ochreous, basal half more or less distinctly spotted with fuscous. Hindwings formed as in ♂; colour and markings as in forewings, but subterminal and submarginal better marked.

Duaringa, Queensland; Sydney, New South Wales; Mount Lofty, South Australia; Geraldton and Carnarvon, West Australia; in October, November, and March, locally rather common. The difference between the two sexes in appearance is remarkable.

18. *Ac. rubraria*, Dbld.

(*Ptychopoda rubraria*, Dbld. Dieff. N. Zeal. II, 286; *Acidalia figlinaria*, Gn. IX, 454, pl. xii, 8; *A. repletaria*, Walk. 778; *A. attributa*, ib. 779; *Fidonia acidaliaria*, ib. 1037; *Acidalia rubraria*, Meyr. Trans. N. Z. Inst. 1883, 57).

♂♀. 17-22 mm. Head light reddish-ochreous. Palpi moderate, whitish-ochreous, reddish-tinged, somewhat sprinkled with black.

Antennæ white, annulated with dark fuscous, in ♂ dentate, ciliations 4. Thorax and abdomen light reddish-ochreous, often irrorated with dark grey. Legs white, more or less irrorated with dark grey, posterior tibiæ in ♂ dilated, rough-scaled above, with long pencil of hairs from base lying on inner side, without spurs, in ♀ with all spurs present, posterior tarsi in ♂ $\frac{1}{2}$. Forewings with costa gently arched, hindmargin slightly rounded, oblique; pale reddish-ochreous, more or less sprinkled with black; lines grey or dark fuscous, variable in intensity, indistinct or strongly marked; first from $\frac{1}{3}$ of costa to $\frac{1}{3}$ of inner margin, denticulate, bent near costa; median from $\frac{2}{3}$ of costa to middle of inner margin, denticulate or cloudy, slightly curved on upper $\frac{2}{3}$, closely preceded by a transverse dark fuscous discal dot; second from $\frac{3}{4}$ of costa to before $\frac{3}{4}$ of inner margin, denticulate, hardly curved, slightly sinuate below costa and above inner margin; subterminal cloudy, waved, sometimes suffused into second except towards costa; submarginal cloudy, tending to be interrupted into spots; a hindmarginal row of black dots: cilia pale reddish-ochreous, with alternating basal and median series of obscure fuscous spots, on terminal half sometimes greyish-tinged. Hindwings with hindmargin rounded; veins 6 and 7 separate or almost from a point; colour and markings as in forewings, but first line absent, median straighter, rather sinuate inwards above middle, closely followed by discal dot.

Duaringa and Toowoomba, Queensland; Glen Innes (3500 feet), Bathurst, Sydney, and Blackheath (3500 feet), New South Wales; Melbourne, Victoria; Launceston and George's Bay, Tasmania; Mount Lofty and Port Lincoln, South Australia; Albany, West Australia; from September to April and in July, generally distributed and usually abundant. Also from Norfolk Island and New Zealand.

19. *Ac. caesaria*, Walk.

(*Acidalia cesaria*, Walk. 750; *A. obturbata*, ib. 755.)

♂♀, 20-22 mm. Head reddish-ochreous, fillet white, face blackish. Palpi blackish, towards base reddish-fuscous, beneath

whitish-ochreous. Antennæ ochreous-whitish, in ♂ subdentate, ciliations 2. Thorax and abdomen whitish-ochreous. Legs whitish-ochreous, anterior pair infuscated, posterior tibiæ white, in ♂ dilated, rough-scaled above, with long pencil of hairs from base lying on inner side, without spurs, in ♀ with all spurs present, posterior tarsi in ♂ $\frac{3}{4}$. Forewings with costa posteriorly moderately arched, hindmargin somewhat bowed, rather oblique; whitish-ochreous, minutely sprinkled with blackish; costal edge slenderly reddish-ochreous; first line cloudy, fuscous-reddish, indicated on lower half only; median cloudy, fuscous-reddish, from beneath costa at $\frac{2}{3}$ to middle of inner margin, rather irregular, preceded by a black discal dot; second from $\frac{5}{6}$ of costa to $\frac{3}{4}$ of inner margin, slender, dark grey, denticulate, slightly curved, sometimes ill-marked; a fuscous-reddish hindmarginal band extending to second line on lower $\frac{2}{3}$, above attenuated to apex; subterminal and submarginal lines cloudy, wavy, dark grey, only marked on hindmarginal band, obsolete above; a hindmarginal row of blackish-grey dots, tending to form a line: cilia with terminal half whitish-ochreous, basal half fuscous-reddish, sprinkled with blackish-grey at base. Hindwings with hindmargin rounded; veins 6 and 7 separate; colour, hindmarginal dots, and cilia as in forewings; lines fuscous-reddish; median straight, followed by a black discal dot; second denticulate, twice slightly sinuate; subterminal cloudy, tending to be interrupted into spots; submarginal cloudy, suffused into hindmargin, and sometimes partially into subterminal, in ♀ less distinct.

Duringa, Queensland; sent rather commonly by Mr. G. Barnard. Also from Ceylon.

20. *Ac. liotis*, n. sp.

[*Acidalia compensata*, Walk. 777, (nec. ib. 724)].

♂. 27 mm. Head greyish-ochreous, fillet white, face blackish-fuscous. Palpi ochreous-whitish. Antennæ whitish, serrate, ciliations $2\frac{1}{2}$. Thorax and abdomen ochreous-whitish. Legs grey, posterior pair whitish, posterior tibiæ dilated, without spurs,

shortly rough-scaled above, tarsi $\frac{2}{3}$. Forewings with costa posteriorly moderately arched, hindmargin hardly rounded, rather oblique; clear ochreous-whitish; first line indicated by a minute black dot near inner margin at $\frac{1}{3}$; a small blackish discal dot, much before median line; lines faint, slender, very pale greyish-ochreous, somewhat irregular; median from $\frac{2}{3}$ of costa to beyond middle of inner margin, sinuate above inner margin; second from $\frac{3}{4}$ of costa to $\frac{3}{4}$ of inner margin, slightly sinuate above middle and above inner margin, faintly dotted with grey on veins and with a black dot near inner margin; subterminal and submarginal parallel; a hindmarginal series of black dots: cilia ochreous-whitish. Hindwings with hindmargin rounded; veins 6 and 7 stalked; colour, second line, and posterior markings as in forewings; median line hardly traceable, sinuate inwards above middle, marked with a moderately large black discal dot.

Mount Kosciusko (3800 feet), New South Wales; one specimen in January; Walker's specimen is said to be from Tasmania. Walker described this species under the name of *A. compensata*, having forgotten that a few pages before he had described a quite different North American species of the same genus under the same name; I have, therefore, re-named the present species.

21. *Ac. axiotis*, n. sp.

♂♀. 23-25 mm. Head ochreous-whitish, face blackish. Palpi ochreous-whitish, above and at apex blackish. Antennæ whitish, in ♂ dentate, ciliations $2\frac{1}{2}$. Thorax ochreous-whitish. Abdomen ochreous-whitish, sprinkled with black or fuscous. Legs grey, posterior pair white, posterior tibiæ in ♂ dilated, somewhat rough-scaled above, with long dense pencil of hairs from base lying on inner side, without spurs, in ♀ all spurs present, posterior tarsi in ♂ $\frac{2}{3}$. Forewings with costa posteriorly gently arched, hindmargin slightly rounded, rather oblique; ochreous-whitish, minutely sprinkled with black or fuscous; lines faint, pale ochreous-greyish; first from $\frac{1}{3}$ of costa to $\frac{1}{2}$ of inner margin, rather strongly curved; a black discal dot much before median; median

from $\frac{3}{4}$ of costa to middle of inner margin, cloudy, waved, hardly sinuate; second from $\frac{4}{5}$ of costa to $\frac{3}{4}$ of inner margin, dentate, finely dotted with grey, slightly sinuate above middle and above inner margin; subterminal and submarginal cloudy, waved; a hindmarginal row of black dots: cilia ochreous-whitish, base minutely sprinkled with blackish. Hindwings with hindmargin rounded; veins 6 and 7 stalked; colour, second line, and posterior markings as in forewings; median very faint, sinuate inwards above middle, marked with a moderate black discal dot.

Extremely similar to *A. recessata*, but differing in the greater length of the posterior tarsi of the ♂, which are $\frac{2}{3}$ of the tibiae, and by the base of the cilia sprinkled with black.

22. *Ac. recessata*, Walk.

[*Acidalia recessata*, Walk., 777, (nec Meyr., Trans. Ent. Soc. Lond., 1886, 207, sp. mixt.); (?) *A. stipataria*, ib. 779.]

♂♀. 20-24 mm. Head greyish-ochreous, fillet white, face blackish. Palpi ochreous-whitish, more or less blackish above, sometimes wholly blackish. Antennæ whitish, in ♂ serrate, ciliations $2\frac{1}{2}$. Thorax ochreous-whitish. Abdomen ochreous-whitish, generally sprinkled with black. Legs grey, posterior pair white, posterior tibiae in ♂ much dilated, rough-scaled above, with long pencil of hairs from base lying on inner side, without spurs, in ♀ with all spurs present, posterior tarsi in ♂ $\frac{1}{3}$. Forewings with costa posteriorly moderately arched, hindmargin slightly rounded, rather oblique; pale whitish-ochreous, sometimes slightly greyish-tinged, more or less irrorated finely with black; lines grey, well-marked; first from $\frac{1}{3}$ of costa to $\frac{1}{3}$ of inner margin, curved, sometimes very indistinct; a black discal dot, much before median; median from beyond $\frac{2}{3}$ of costa to middle of inner margin, straight, dentate, often thick and cloudy; second from $\frac{4}{5}$ of costa to $\frac{3}{4}$ of inner margin, slender, dentate, slightly sinuate inwards above middle and above inner margin; subterminal rather cloudy, interrupted to form a series of adjacent suboval spots; submarginal

rather thick, cloudy, more or less interrupted; a hindmarginal series of black dots: cilia pale whitish-ochreous. Hindwings with hindmargin round; veins 6 and 7 short-stalked or almost from point; colour, second line, and posterior markings as in forewings; median line as in forewings, but suddenly sinuate inwards above middle; a moderate black discal dot on this, or rarely slightly beyond it.

Sydney, New South Wales; Deloraine, Tasmania; Mount Lofty, South Australia; Geraldton, West Australia; in July, August, November, and December, generally common. It is probably almost universal, but owing to the confusion of species I have rejected localities except where lately verified. On discovering the existence of closely allied forms, I took a considerable number of specimens, certainly belonging to the same species, in the early spring round Sydney, and found it to be very variable, especially in the colour of palpi, strength of markings of forewings, and depth of colouring; from the two preceding species, to which it is extremely similar, it can always be distinguished by the relatively much shorter posterior tarsi of ♂. *A. stipataria*, Walk., is probably only a deeper-coloured variety. *A. recessata*, Meyr. *l.c.*, should be cancelled, being founded on a confusion of two species, and not strictly referable to either.

23. *Ac. optivata*, Walk.

(*Acidalia optivata*, Walk. 780).

♂. 18-23 mm. Head light ochreous, fillet ochreous-whitish, face blackish. Palpi ochreous-whitish, towards apex or wholly suffused with blackish. Antennæ whitish, in ♂ dentate, ciliations $2\frac{1}{2}$. Thorax ochreous-whitish. Abdomen ochreous-whitish, sometimes with a few black scales. Legs ochreous-whitish, anterior pair dark fuscous, middle pair fuscous-tinged, posterior tibiæ dilated, rough-scaled above, with long pencil of hairs from base lying on inner side, tarsi $\frac{1}{3}$. Forewings with costa posteriorly moderately arched, hindmargin slightly rounded, rather oblique;

very pale whitish-ochreous, sometimes minutely sprinkled with blackish; lines pale ochreous-grey; first obsolete; a small black discal dot, much before median; median very faint, cloudy, from $\frac{3}{4}$ of costa to middle of inner margin, nearly straight; second from $\frac{4}{5}$ of costa to $\frac{3}{4}$ of inner margin, slender, tolerably distinct, denticulate, slightly sinuate above middle and above inner margin; subterminal narrow, more or less interrupted into spots; submarginal cloudy; a hindmarginal row of minute black dots: cilia pale whitish-ochreous. Hindwings with hindmargin rounded; veins 6 and 7 from a point; colour, second line, and posterior markings as in forewings; a very faint median line, suddenly sinuate inwards above middle, marked with a black discal dot.

Glen Innes (3500 feet) and Sydney, New South Wales, in December, February, and April; several specimens. Although keeping this form separate at present, in default of sufficient evidence, I am inclined to believe that it is probably a summer generation of *A. recessata*, with which it agrees in structure; although quite distinguishable superficially, the only tangible point seems to be obsolescence of the median line.

24. *Ac. sublinearia*, Walk.

(*Acidalia sublinearia*, Walk. Suppl. 1632.)

♂♀. 19-20 mm. Head whitish-ochreous, fillet white, face black. Palpi blackish, more or less ochreous-whitish beneath. Antennæ whitish, in ♂ subdentate, ciliations 2. Thorax ochreous-whitish. Abdomen ochreous-whitish, sometimes with a dorsal series of black dots. Legs ochreous-whitish, anterior pair fuscous, posterior tibiæ in ♂ dilated, rough-scaled above, without spurs, in ♀ with all spurs present, posterior tarsi in ♂ $\frac{1}{2}$. Forewings with costa posteriorly gently arched, hindmargin slightly rounded, rather oblique; very pale whitish-ochreous, finely sprinkled with black; lines pale ochreous-grey, waved; first indicated only by black dots on median vein and near inner margin; a black discal dot, much before median; median from $\frac{2}{3}$ of costa to beyond

middle of inner margin, slightly curved; second quite parallel to median, marked with a series of distinct black dots on veins; subterminal and submarginal cloudy; a hindmarginal series of black dots: cilia pale whitish-ochreous, sometimes with a basal series of minute grey dots. Hindwings with hindmargin rounded; veins 6 and 7 from a point; colour and markings as in forewings, but first line absent.

Duaringa and Toowoomba, Queensland; Geraldton, West Australia; in November and December, four specimens. Recognisable by the characteristic dotted second line.

25. *Ac. crossophragma*, Meyr.

(*Acidalia crossophragma*, Meyr., Trans. Ent. Soc. Lond. 1886, 206.)

♂♀. 20-23 mm. Head light ochreous, fillet white, face rather dark ochreous-brown. Palpi ochreous-fuscous or pale ochreous. Antennæ white, dotted with dark fuscous, in ♂ subdentate, ciliations $2\frac{1}{2}$. Thorax and abdomen whitish-ochreous. Legs grey, posterior pair whitish, posterior tibiæ in ♂ dilated, rough-scaled above, with long pencil of hairs from base lying on inner side, in ♀ with all spurs present, posterior tarsi in ♂ $\frac{1}{3}$. Forewings with costa posteriorly moderately arched, hindmargin somewhat bowed, rather oblique; pale whitish-ochreous, sprinkled with fuscous or dark fuscous; lines grey, slender, waved, sometimes indistinct; first nearly straight, very faint; a small black discal dot, much before median; median from $\frac{2}{3}$ of costa to middle of inner margin, cloudy, hardly curved; second from $\frac{4}{5}$ of costa to $\frac{2}{3}$ of inner margin, hardly curved; subterminal and submarginal similar; a hindmarginal row of black dots, connected by a very fine sometimes incomplete line: cilia whitish-ochreous, terminal half whitish, with a well-defined slender grey line near base, and a stronger dark grey median line. Hindwings with hindmargin rounded, somewhat bent in middle; veins 6 and 7 separate; colour and markings as in forewings, but first line absent, discal dot larger, placed on posterior edge of median, subterminal and submarginal more curved.

Duaringa and Rosewood, Queensland; in December, several specimens. Also from New Guinea. Easily recognised by the two well-marked dark lines of cilia.

26. *Ac. perlata*, Walk.

(*Acidalia perlata*, Walk. 776.)

♂♀. 20-22 mm. Head pale ochreous, fillet ochreous-whitish, face blackish. Palpi blackish, beneath whitish-ochreous. Antennæ whitish, in ♂ dentate, ciliations 3. Thorax and abdomen pale whitish-ochreous, with a few black scales. Legs whitish-ochreous, anterior pair grey, posterior tibiæ whitish, in ♂ dilated, rough-scaled above, with long pencil of hairs lying on inner side, without spurs, in ♀ with all spurs present, posterior tarsi of ♂ $\frac{4}{5}$. Forewings with costa gently arched, hindmargin somewhat bowed, rather oblique; pale whitish-ochreous, sprinkled with black; lines greyish-ochreous, ill-defined; first nearly obsolete; a minute black discal dot, much before median; median from beneath costa at $\frac{3}{4}$ to middle of inner margin, rather thick, cloudy, hardly curved, waved; second from $\frac{5}{6}$ of costa to $\frac{4}{5}$ of inner margin, slender, waved, somewhat curved; subterminal similar; submarginal slender, cloudy; a hindmarginal row of black dots: cilia pale whitish-ochreous. Hindwings with hindmargin angulated in middle, forming a slight triangular projection; veins 6 and 7 closely approximated or stalked; colour and markings as in forewings, but first line absent, discal dot larger, placed on posterior edge of median.

Sydney, New South Wales; in July and August, three specimens. Distinguished from the preceding group, which it closely resembles, by the angulated hindwings.

27. *Ac. ligataria*, Walk.

(*Acidalia ligataria*, Walk. 748; *A. deliciosaria*, ib. 791; *A. dimorphata*, Snell. T. v. E. 1881, 81, pl. x, 6; *Idea agnes*, Butl., Trans. Ent. Soc. Lond. 1886, 437.)

♀. 21-22 mm. Head pale ochreous, fillet white, face blackish. Palpi blackish, beneath white. Antennæ, thorax, abdomen, and legs white; anterior legs grey, posterior tibiæ with all spurs present. Forewings with costa gently arched, hindmargin bowed, oblique; white; first line indicated by one or two fuscous dots; a minute black discal dot; median line absent; second whitish-ochreous or ochreous-yellowish, very slender, waved, obsolete on costal fourth, more or less strongly margined anteriorly with dark fuscous on second fourth from costa and on dorsal fourth, very faint between these; subterminal only distinctly indicated opposite dark portions of second line, cloudy, rather dark fuscous, tending to be suffused into second, but sometimes almost entirely obsolete; submarginal very faint, cloudy, pale whitish-ochreous; a more or less interrupted blackish hindmarginal line: cilia white, with some indistinct fuscous dots near base. Hindwings with hindmargin angulated in middle, with moderate triangular projection; veins 6 and 7 separate; colour, discal dot, submarginal and hindmarginal lines, and cilia as in forewings; second line slender, waved, somewhat curved, faint whitish-ochreous, with one or two black scales; subterminal faint, cloudy, pale whitish-ochreous.

Duaringa, Queensland; three specimens sent by Mr. G. Barnard. Also from Formosa, Celebes, and India.

Sect. B. Posterior tibiæ of ♂ with terminal spurs.

28. *Ac. orthoscia*, n. sp.

♂♀. 16-19 mm. Head pale ochreous, fillet white, face blackish. Palpi ochreous-whitish. Antennæ whitish, in ♂ serrate, ciliations $2\frac{1}{2}$. Thorax and abdomen pale whitish-ochreous. Legs ochreous-whitish, posterior tibiæ in ♂ well-developed, slender, with terminal spurs, in ♀ with all spurs present, posterior tarsi in ♂ 1, fully developed. Forewings with costa posteriorly moderately arched (less in ♀), hindmargin slightly rounded, oblique; pale whitish-ochreous, in ♀ thinly sprinkled with black; lines pale ochreous; first nearly straight, indistinct; a minute black discal dot before

median ; median from $\frac{2}{3}$ of costa to beyond middle of inner margin, somewhat darker than other lines, cloudy, straight ; second from $\frac{4}{5}$ of costa to $\frac{3}{4}$ of inner margin, slender, straight ; subterminal rather slender, very near second ; submarginal slender, indistinct ; a hindmarginal row of black dots : cilia pale whitish-ochreous. Hindwings with hindmargin rounded ; veins 6 and 7 from a point or separate ; colour and markings as in forewings, but first line absent, discal dot on or immediately beyond median, second and posterior lines rather curved.

Geraldton and Perth, West Australia ; in October and November, several specimens.

29. *Ac. megalocentra*, n. sp.

♂. 23 mm. Head whitish-ochreous, fillet white, face black. Palpi blackish, beneath whitish. Antennæ whitish, filiform, ciliations 3. Thorax and abdomen ochreous-whitish, with a few black scales. Legs ochreous-white, anterior femora and tibiæ infuscated, posterior tibiæ well-developed, slender, with terminal spurs, tarsi 1, fully developed. Forewings with costa posteriorly moderately arched, hindmargin slightly rounded, oblique ; ochreous-whitish, thinly sprinkled with black ; lines slender, very pale greyish-ochreous ; first only indicated towards inner margin, where it is mixed with black ; median very faint, from disc at $\frac{3}{5}$ to inner margin before middle, preceded by a conspicuous black discal dot ; second from $\frac{4}{5}$ of costa to $\frac{3}{4}$ of inner margin, slightly sinuate above middle and above inner margin, with indications of dots on veins, and a distinct blackish dot above middle ; subterminal and submarginal cloudy, faint ; a hindmarginal series of black dots : cilia ochreous-whitish. Hindwings with hindmargin rounded ; veins 6 and 7 stalked ; colour, second line, and posterior markings as in forewings, but second line more irrorated with black throughout, without separate dots ; a faint cloudy median line at $\frac{2}{5}$; a large black discal dot beyond this.

Adelaide, South Australia ; one specimen in October.

30. *Ac. episcia*, n. sp.

♂. 18-19 mm. Head, palpi, and thorax dark grey, more or less mixed with ochreous-whitish. Antennæ grey-whitish, serrate, ciliations 2. Abdomen and legs whitish, irrorated with dark grey, posterior tibiæ well-developed, slender, with terminal spurs, tarsi fully-developed, longer than tibiæ. Forewings with costa straight, hindmargin bowed, oblique; white, suffusedly irrorated with fuscous; costa and a basal patch bounded by a line from before middle of costa to near base of inner margin fuscous, sprinkled with black; first from middle of costa to $\frac{1}{4}$ of inner margin, hardly curved; a dark fuscous discal dot before median; median strong, rather irregular, cloudy, fuscous, mixed with black, from $\frac{2}{3}$ of costa to before middle of inner margin, sinuate inwards below middle, anteriorly more or less suffused; second from $\frac{4}{5}$ of costa to $\frac{2}{3}$ of inner margin, tolerably parallel to hindmargin, somewhat irregular; subterminal fuscous sprinkled with black, more or less strong, near and parallel to second, followed by a nearly clear white line; submarginal fuscous, indistinct; an entire dark fuscous hindmarginal line, marked with black dots: cilia fuscous, very obscurely barred with whitish, base whitish. Hindwings with hindmargin rounded, obtusely much bent about veins 3 and 4, sinuate above anal angle, inner margin short; veins 6 and 7 stalked; colour, second line, and all posterior markings as in forewings, but second line markedly sinuate inwards above middle; a cloudy fuscous median line, irrorated with black, rather abruptly sinuate inwards above middle, followed by a black discal dot.

Carnarvon, West Australia; two specimens in October.

5. TIMANDRA, Dup.

Face smooth. Antennæ in ♂ bipectinated, towards apex filiform. Palpi moderate, porrected or ascending, second joint with rather dense tolerably appressed scales, slightly rough beneath, terminal joint moderate. Thorax smooth beneath. Posterior

femora in ♂ sometimes with tuft of hairs; posterior tibiæ in ♂ cylindrical, sometimes clothed with dense hairs, all spurs present, tarsi developed. Forewings with veins 3 and 4 sometimes from a point, 6 remote from 9, 10 out of 9, 11 connected at a point or anastomosing with 9. Hindwings with veins 3 and 4 stalked or closely approximated, 6 and 7 stalked.

A small genus, principally Indo-Malayan, but with stragglers in other regions. The genus may be regarded as including two main sections, in the first of which the posterior legs are furnished with tufts of hair in the ♂, whilst in the other they are simple; both the Australian species belong to the first section. Probably both are really Malayan, ranging into Australia.

31. *Tim. aventiaria*, Gn.

(*Timandra aventiaria*, Gn. x, 3.)

♂♀. 25-28 mm. Head reddish-ochreous, fillet whitish-ochreous. Palpi reddish-ochreous. Antennæ ochreous-whitish or grey-whitish, pectinations in ♂ *a* 2, *b* 5. Thorax, abdomen, and legs whitish-ochreous, more or less reddish-tinged, in ♂ posterior femora with large rough tuft of hairs near base beneath, posterior tibiæ clothed beneath with long dense rough hairs, inner middle-spur flattened. Forewings with costa posteriorly moderately arched, hindmargin oblique, rather deeply concave on upper half, angularly projecting in middle, lower half straight; whitish-ochreous, generally more or less strongly reddish-tinged, sometimes posteriorly with obscure scattered reddish-fuscos strigulæ; a small roundish purplish-grey discal spot, margined with dark purple-fuscos; a straight pale whitish-ochreous line, anteriorly margined with ochreous or fuscos-reddish, from costa near apex to inner margin beyond middle; sometimes a few minute black dots arranged in a posterior series, probably representing second line; a deep fuscos-reddish streak, marked with four small blackish spots, along upper half of hindmargin: cilia whitish-grey, basal half dark grey, but with a pale space below middle. Hindwings with hindmargin angulated in

middle, forming a moderate triangular projection; colour and cilia as in forewings; a small whitish discal dot; a straight line, as in forewings, from beyond middle of costa to below middle of inner margin.

Duaringa, Queensland; sent commonly by Mr. G. Barnard. According to the British Museum also from India and Ceylon.

32. *Tim. prasodes*, n. sp.

♂. 26-27 mm. Head reddish-ochreous, fillet ochreous-whitish. Palpi whitish-ochreous, towards apex reddish-ochreous. Antennæ rosy-whitish, pectinations *a* 4, *b* 7. Thorax, abdomen, and legs whitish-ochreous, posterior femora with large rough tuft of hairs near base beneath, posterior tibiæ clothed beneath with dense long hairs, inner middle-spur flattened. Forewings with costa posteriorly moderately arched, hindmargin oblique, somewhat angularly projecting in middle, upper half very slightly concave, lower half straight; pale ochreous-greenish; a white discal dot, slenderly margined with fuscous; a faint straight whitish-ochreous line, obscurely margined with darker anteriorly, from $\frac{5}{8}$ of costa to beyond middle of inner margin; a posterior series of faint cloudy darker dots: cilia reddish-whitish, basal third reddish-grey. Hindwings with hindmargin angulated in middle, forming a short triangular projection; colour and markings as in forewings, but median line running from beyond middle of costa to below middle of inner margin.

Duaringa, Queensland; three specimens received from Mr. G. Barnard.

6. *UROLITHA*, n. g.

Face smooth. (Ocelli present.) Antennæ in ♂ serrate, biciliated with fascicles. Palpi moderate, slender, loosely scaled, porrected, terminal joint in ♂ short, in ♀ moderately long. Posterior tibiæ in ♂ somewhat thickened, grooved, containing a pencil of long hairs, all spurs present. Thorax slightly hairy beneath. Abdomen in ♂ with prensors strong, each with an

internal outwards-curved hook at base, uncus laterally double throughout, with a long straight simple process from pediment beneath. Forewings with veins 3 and 4 stalked, 6 from point with or out of 9, 10 out of 9, 11 free or anastomosing with 12. Hindwings with veins 3 and 4 stalked, 6 and 7 stalked.

I note the presence of distinct ocelli in this genus, but in a group such as the *Geometrina*, where they tend strongly to become permanently obsolete, I doubt if the structure is of any generic value.

33. *Urol. bipunctifera*, Walk.

(*Iodis bipunctifera*, Walk., 546.)

♂♀. 21-26 mm. Face yellow-ochreous, forehead deep carmine, fillet and postorbital rim white, crown yellowish-green. Palpi white, above carmine. Antennæ white, becoming ochreous towards apex. Thorax green. Abdomen green, apex and sides white, sometimes (not always or sexually) with a dorsal ochreous streak not reaching base, and marked with four or five raised dark fuscous-red golden-metallic spots. Legs ochreous-white, tarsi and anterior tibiæ more ochreous, anterior tibiæ slightly reddish-tinged. Forewings broad, costa moderately arched, hindmargin almost straight; yellowish-green; costal edge slenderly ochreous-white; lines straight, slender, somewhat irregular, ochreous-whitish, obsolete on costa; first from before middle of costa to middle of inner margin, second from $\frac{2}{3}$ of costa to $\frac{1}{4}$ of inner margin; a minute black discal dot on or before first line; generally a short very fine black line on apical margin: cilia yellowish-white, with a small faint carmine spot at apex, beneath anal angle greenish. Hindwings broad, hindmargin almost straight or slightly rounded, inner margin very long, anal angle rounded; yellowish-green; a straight slender ochreous-whitish line from middle of costa to inner margin near before anal angle; a short very fine black line on apical margin; a small triangular deep carmine spot on anal angle, marginal edge suffusedly black: cilia yellowish-white, on inner margin yellowish, with a carmine spot on anal angle and fainter one at apex.

Newcastle and Sydney, New South Wales, from September to November ; eight specimens, taken mostly at lamps. The species is variable, but widely different from any other known to me.

7. EUCROSTIS, Hb.

Face smooth. Antennæ in ♂ bipectinated, towards apex simple. Palpi rather short, porrected, loosely scaled, terminal joint short or moderate. Posterior tibiæ in both sexes with middle spurs absent. Abdomen in ♂ with uncus simple, with basal process beneath. Forewings with veins 3 and 4 separate, 6 separate or from point with or out of 9, 10 out of 9, 11 anastomosing with or running into 12. Hindwings with veins 3 and 4 separate or stalked, 6 and 7 from a point or stalked.

The genus is apparently nearly cosmopolitan, but not very large.

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| 1. Wings with white transverse lines | 2. |
| Wings without white transverse lines | 36. <i>ioentra</i> . |
| 2. Face green..... | 34. <i>argocrana</i> . |
| Face ferruginous | 35. <i>latilineata</i> . |

34. *Eucr. argocrana*, n. sp.

♂. 26 mm. Face and fillet light green, crown white. Palpi and antennæ white. Thorax light green, sides narrowly white. Abdomen whitish, mixed with greenish. Legs white, femora and coxæ greenish. Forewings with costa moderately arched, hindmargin oblique, hardly rounded ; vein 6 separate from 9, 11 anastomosing with 12 ; pale yellowish-green ; costa narrowly white ; lines white ; first from $\frac{1}{4}$ of costa to $\frac{2}{5}$ of inner margin, slender, moderately curved ; second from costa near apex to $\frac{3}{5}$ of inner margin, moderately thick, attenuated above, almost straight : cilia white, towards base greenish. Hindwings with hindmargin rounded ; veins 3 and 4 separate, 5 equidistant between 4 and 6, 6 and 7 from a point ; pale yellow-greenish : cilia as in forewings.

Victoria ; one specimen (Coll. Lucas).

35. *Eucr. latilineata*, Walk.

(*Geometra latilineata*, Walk. Suppl. 1605.)

♂. 15-16 mm. Head and palpi ferruginous. Antennæ ochreous-whitish or ochreous, beneath ferruginous, pectinations short. Thorax whitish-green, anterior margin broadly pale ochreous, collar ferruginous. Abdomen ochreous-whitish. Legs ferruginous, beneath whitish. Forewings with costa almost straight, hindmargin obliquely rounded; vein 6 out of 9, 11 anastomosing with 12; rather light bluish-green (rapidly fading to more yellowish); a moderate whitish-ochreous costal streak, gradually attenuated to apex, extreme costal edge more or less ferruginous towards base; lines ochreous-whitish; first from $\frac{2}{5}$ of costa to $\frac{2}{5}$ of inner margin, slender, curved, sometimes obsolete towards costa; second from $\frac{4}{5}$ of costa to $\frac{4}{5}$ of inner margin, straight, moderately thick: cilia pale greenish, terminal half whitish. Hindwings with hindmargin strongly rounded; veins 3 and 4 stalked, 6 and 7 stalked; colour, second line, and cilia as in forewings; a short transverse whitish mark in disc before middle.

Duaringa and Maryborough, Queensland; in January and February; eight specimens sent by Mr. G. Barnard.

36. *Eucr. iocentra*, n. sp.

♂. 14 mm. Face brown-red, fillet white, crown yellowish-green. Palpi white, above brown-red. Antennæ white, pectinations short. Thorax yellowish-green, anterior margin yellower. Abdomen pale green, becoming whitish on sides. Legs white, anterior and middle coxæ, femora, and tibiæ dull fuscous-carmine above. Forewings with costa slightly arched, hindmargin obliquely rounded; vein 6 almost from a point with 9, 11 running into 12; yellowish-green; a slender white costal streak, beneath which the groundcolour is more yellowish; a small brown-red discal spot; a hindmarginal series of brown-red lunules: cilia whitish (imperfect). Hindwings with hindmargin rather strongly

rounded ; veins 3 and 4 stalked, 6 and 7 stalked ; colour, discal spot, hindmarginal lunules, and cilia as in forewings.

Duaringa, Queensland ; one specimen sent by Mr. G. Barnard.

8. COMOSTOLA, n. g.

Face smooth. Antennæ in ♂ bipectinated, towards apex simple. Palpi moderate, filiform, porrected, terminal joint in ♀ very long. Posterior tibiæ (in ♂ ?) in ♀ with all spurs present. Forewings with veins 3 and 4 from a point, 6 out of 9, 10 out of 9, 11 out of 9 above 6, anastomosing with 12. Hindwings with veins 3 and 4 stalked, 6 and 7 stalked.

37. *Com. perlepidaria*, Walk.

(*Eucrostis perlepidaria*, Walk. Suppl. 1610).

♂♀. 16-17 mm. Face brown, somewhat mixed with dark reddish-fuscous, fillet white, crown green with a fuscous-red spot. Palpi white, above fuscous-reddish. Antennæ whitish, base of pectinations black, pectinations long. Thorax and abdomen light bluish-green (partly defaced). Legs white, anterior pair dark reddish-fuscous above. Forewings with costa moderately arched, hindmargin rather oblique, slightly rounded ; rather light bluish-green ; a narrow pale ferruginous costal streak, irregularly mixed with leaden-metallic scales ; markings deep brown-red, margined with whitish ; first line indicated by a small spot on inner margin before $\frac{1}{3}$; a moderate discal spot, containing a transverse bright leaden-metallic mark ; second line indicated by an outwards-curved series of dots on veins from $\frac{2}{3}$ of costa to $\frac{2}{3}$ of inner margin, middle one somewhat larger, series terminating in a small spot on inner margin ; a leaden-metallic hindmarginal line, mixed with fuscous-red, interrupted by whitish dots on veins : cilia whitish-ochreous. Hindwings with hindmargin moderately bent on vein 4 ; colour, discal spot, second and hindmarginal lines, and cilia as in forewings.

Brisbane, Queensland; two specimens received from Dr. Lucas. I may repeat here what I have noted elsewhere, that in the case of this and all other species quoted by Walker as from "Swan River, Mr. Diggles' collection" some mistake was made, as all these species appear to be really from Queensland, where Mr. Diggles principally collected.

9. IODIS, Hb.

Face smooth. Antennæ in ♂ bipectinated, towards apex simple. Palpi short or moderate, second joint loosely scaled or shortly rough-scaled beneath, terminal joint short or moderately long, porrected. Thorax sometimes hairy beneath. Posterior tibiæ in ♂ often thickened and grooved, with pencil of hairs in groove, all spurs present. Abdomen in ♂ with uncus simple, with basal process beneath. Forewings with veins 3 and 4 stalked or separate, 6 out of 9 or separate, 10 out of 9, 11 free or anastomosing with 12 and sometimes with 10 also, rarely running into 12. Hindwings with veins 3 and 4 separate or stalked, 6 and 7 stalked.

After examination of a large quantity of material, I find it necessary to include in the single genus *Iodis* a variety of forms classed by Guénée and others as several distinct genera (*Thalassodes*, *Phorodesma*, *Chlorochroma*, *Chlorodes*, *Comibaena*). This is not for want of structural differences, for there is abundance of variation in the neuration and form of the palpi, but it is impossible to make use of it to advantage; the characters seem inconstant, being liable to frequent variation within the limits of the same species, and in their normal form differ more or less in every species, even the most closely-allied. I have consequently classed all together, regarding the structural variation as specific only; as such, it is described in each case under the specific characters. The genus in its extended sense will be rather large, but not excessively, probably containing some 200 species; apparently cosmopolitan (except New Zealand), but principally characteristic of the Indo-Malayan and Australian regions.

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| 1. Forewings more or less marked with red or brown..... | 2. |
| Forewings not marked with red or brown | 14. |
| 2. Wings with numerous short transverse whitish strigulae | 3. |
| Wings without transverse strigulae | 5. |
| 3. Face partly green... .. | 4. |
| Face wholly red..... | 74. <i>saturataria</i> . |
| 4. Crown green | 75. <i>metaspila</i> . |
| Crown ferruginous | 77. <i>pieroides</i> ♀. |
| 5. Hindwings with two white subapical spots | 68. <i>buprestaria</i> . |
| Hindwings without white subapical spots | 6. |
| 6. Forewings with a ferruginous streak along inner margin..... | 70. <i>boisduvalaria</i> . |
| Forewings without ferruginous streak along inner margin | 7. |
| 7. Crown wholly white | 71. <i>partita</i> . |
| Crown not wholly white..... | 8. |
| 8. Face green..... | 9. |
| Face not green..... | 10. |
| 9. Crown brown..... | 76. <i>insperata</i> ♀. |
| Crown green | 72. <i>iosticta</i> . |
| 10. Forewings with whitish longitudinal streaks | 69. <i>exotERICA</i> . |
| Forewings without whitish longitudinal streaks | 11 |
| 11. Discal spot of hindwings leaden-metallic... | 66. <i>leucomerata</i> . |
| Discal spot of hindwings not leaden-metallic | 12. |
| 12. Crown green..... | 73. <i>crossota</i> . |
| Crown crimson | 13. |
| 13. Wings with a hindmarginal series of purplish spots | 67. <i>rhodocosma</i> . |
| Wings without hindmarginal series of purplish spots | 61. <i>cadmaria</i> . |
| 14. Head wholly without green marking | 15. |
| Head more or less marked with green ,,,... | 20. |

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|---|--------------------------|
| 15. Hindwings ochreous-yellow | 43. <i>gratiosata</i> . |
| Hindwings not yellow | 16. |
| 16. Hindwings much paler than forewings,
green-whitish | 46. <i>pyropa</i> . |
| Hindwings concolorous with forewings,
green | 17. |
| 17. Fillet light yellow, concolorous with crown | 54. <i>carenaria</i> . |
| Fillet white | 18. |
| 18. Cilia light yellow | 49. <i>melocrossa</i> . |
| Cilia ochreous-whitish | 19. |
| 19. Anterior coxæ orange | 55. <i>submissaria</i> . |
| Anterior coxæ silvery-white, outer side
ochreous and green | 56. <i>argocnemis</i> . |
| 20. Face partly or wholly green | 21. |
| Face entirely without green | 35. |
| 21. Base of cilia fuscous-crimson | 63. <i>semicrocea</i> . |
| Base of cilia green or whitish | 22. |
| 22. Base of cilia white or yellowish-white | 23. |
| Base of cilia green | 25. |
| 23. Wings with a black discal dot | 65. <i>oxycentra</i> . |
| Wings without black dot | 24. |
| 24. Wings with numerous minute whitish
strigulae | 64. <i>albicosta</i> . |
| Wings without numerous minute whitish
strigulae | 53. <i>inchoata</i> . |
| 25. Face partly brown or ferruginous | 26. |
| Face not brown or ferruginous | 28. |
| 26. Crown orange with two green dots | 44. <i>beryllina</i> . |
| Crown wholly green | 27. |
| 27. Hindwings whitish, | 42. <i>fugitivaria</i> . |
| Hindwings green | 62. <i>ocypetra</i> . |
| 28. Face marked with white | 29. |
| Face wholly green | 30. |

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|---|----------------------------|
| 29. First and second lines slender..... | 76. <i>insperata</i> ♂. |
| First and second lines broad..... | 77. <i>pieroides</i> ♂. |
| 30. Second line of forewings whitish..... | 31. |
| Second line of forewings not whitish..... | 33. |
| 31. Forewings with a dark green discal dot... .. | 52. <i>neptunus</i> . |
| Forewings without a dark green discal dot | 32. |
| 32. Forewings with first line absent | 41. <i>stereota</i> . |
| Forewings with first line distinct..... .. | 33. |
| 33. First line of forewings sharply hooked in-
wards at upper extremity..... | 40. <i>leucochorda</i> . |
| First line of forewings straight..... | 39. <i>hypsithrona</i> . |
| 34. Hindmargin of hindwings strongly bent in
middle..... | 51. <i>centrophylla</i> . |
| Hindmargin of hindwings rounded..... | 50. <i>asemanta</i> . |
| 35. Crown crimson in front..... | 36. |
| Crown wholly green..... | 38. |
| 36. Cilia whitish-ochreous at base..... | 58. <i>dichloraria</i> . |
| Cilia wholly pale crimson..... | 37. |
| 37. Thorax and abdomen with a yellow dorsal
line..... | 59. <i>vertumnaria</i> . |
| Thorax and abdomen without a yellow dor-
sal line..... | 60. <i>externa</i> . |
| 38. Cilia of forewings green at base..... | 39. |
| Cilia of forewings not green at base..... | 42. |
| 39. Hindwings white | 40. |
| Hindwings green | 41. |
| 40. Lines of forewings white, distinct | 38. <i>meandraria</i> . |
| Lines of forewings absent..... | 45. <i>ochtharula</i> . |
| 41. Hindwings with hindmargin strongly
rounded..... | 57. <i>monocyma</i> . |
| Hindwings with hindmargin obtusely bent
in middle | 78. <i>byrsopsis</i> . |
| 42. Face white, forehead ferruginous..... | 48. <i>citrolimbaria</i> . |
| Face wholly reddish-fuscous..... | 47. <i>halochlora</i> . |

38. *Iod. meandraria*, Gn.*(Iodis meandraria, Gn. ix, 355.)*

♂♀. 26-27 mm. Face and fillet orange, crown green. Palpi orange, terminal joint short. Antennæ white, pectinations 8. Thorax green, slightly hairy beneath. (Abdomen broken.) Legs green above, white beneath, anterior femora and base of coxæ with orange streaks, anterior tibiæ and tarsi orange above, posterior tibiæ in ♂ not thickened. Forewings with costa moderately arched, hindmargin oblique, faintly sinuate; veins 3 and 4 separate, 6 separate or from point with 9, 11 anastomosing or connected by bar with 12 and then with 10; bluish-green, costal edge orange; lines moderate, snow-white, margined with rather darker green, parallel, discal third curved outwards; first from beneath middle of costa to $\frac{1}{3}$ of inner margin, second from costa near apex to $\frac{2}{3}$ of inner margin: cilia green, tips whitish. Hindwings with hindmargin strongly rounded; veins 3 and 4 from a point or stalked; white; a curved second line indicated only by very faint greenish margins; cilia green, tips whitish.

Hobart, Tasmania; two specimens.

39. *Iod. hypsithrona*, n. sp.

♀. 26 mm. Head bluish-green, fillet white. Palpi whitish-green, terminal joint short. Antennæ white. Thorax bluish-green, thinly hairy beneath. Abdomen green-whitish. Legs whitish, anterior pair ochreous-tinged above, anterior coxæ green. Forewings with costa gently arched, hindmargin rather oblique, hardly rounded; veins 3 and 4 separate, 6 out of 9, 11 anastomosing with 12 and then with 10; bluish-green; lines moderate, white, ill-defined, rather irregular; first from middle of disc to middle of inner margin; second from beneath costa at $\frac{3}{4}$ to $\frac{3}{4}$ of inner margin, tending to form spots on veins, rather sinuate inwards near inner margin: cilia pale green, tips whitish. Hindwings with hindmargin strongly rounded, slightly bent on vein 4;

3 and 4 short-stalked ; pale whitish-green, becoming white at base and towards costa anteriorly ; a moderate ill-defined curved white line at $\frac{2}{3}$; cilia whitish-green, tips whitish.

Mount Kosciusko (5000 feet), New South Wales ; one specimen in January.

40. *Iod. leucochorda*, n. sp.

♂. 28 mm. Head green, fillet white. Palpi green, terminal joint short. Antennæ white, pectinations 6. Thorax bluish-green, thinly hairy beneath. Abdomen white, narrowly pale greenish on back. Legs white, anterior and middle coxæ green, anterior femora ochreous with a green streak above, anterior tibiæ and tarsi ochreous, posterior tibiæ rather thickened, with groove containing pencil of whitish hairs. Forewings with costa moderately arched, hindmargin rather oblique, hardly rounded ; veins 3 and 4 separate, 6 out of 9, 11 anastomosing with 12 and then with 10 ; bluish-green ; costal edge narrowly ochreous-white from before middle to apex ; lines narrow, white, well-defined ; first from above middle of disc to $\frac{1}{3}$ of inner margin, slightly sinuate, upper extremity with a short projection inwards, forming an acute hook ; second from beneath costa at $\frac{4}{5}$ to inner margin beyond $\frac{2}{3}$, slightly irregular : cilia green, tips whitish. Hindwings with hindmargin strongly rounded, slightly bent on vein 4 ; 3 and 4 stalked ; pale whitish-green, becoming white towards costa ; a narrow rather irregular curved white line about $\frac{2}{3}$; cilia whitish-green, tips white.

Deloraine, Tasmania ; two specimens in December.

41. *Iod. stereota*, n. sp.

♂♀. 28-33 mm. Head green, fillet whitish-ochreous. Palpi pale green, terminal joint short. Antennæ white, pectinations 6, inner series green. Thorax bluish-green, with a central whitish-ochreous line not reaching anterior margin, rather hairy beneath. Abdomen white, somewhat mixed with pale green. Legs white, more or less pale green above, posterior tibiæ in ♂ rather

thickened, with groove containing pencil of whitish hairs. Forewings with costa gently arched, hindmargin rather oblique, slightly rounded; veins 3 and 4 separate, 6 out of 9, 11 anastomosing with 12 and sometimes afterwards with 10; bluish-green; costa narrowly whitish-ochreous; a narrow straight white line from beneath costa at $\frac{4}{5}$ to $\frac{3}{5}$ of inner margin: cilia green, terminal half white. Hindwings with hindmargin rounded; veins 3 and 4 short-stalked; pale bluish-green, becoming more whitish towards base; a narrow somewhat irregular rather curved whitish line about $\frac{3}{4}$; cilia green, terminal half white.

Melbourne, Victoria; two specimens in October.

42. *Iod. fugitivaria*, Gn.

(*Iodis fugitivaria*, Gn. ix, 354; *I. intacta*, Walk. 545; *I. obliquissima*, ib. 546.)

♂. 28-29 mm. Face light brown, with some green marginal scales, fillet white, crown green. Palpi green, terminal joint short. Antennæ white, pectinations 4. Thorax bluish-green, rather hairy beneath. Abdomen white, slightly mixed with pale greenish. Coxæ and femora green, tibiæ and tarsi whitish-ochreous, posterior tibiæ not thickened. Forewings with costa gently arched, hindmargin oblique, slightly rounded; veins 3 and 4 separate, 6 out of 9, 11 anastomosing with 12 and then with 10; bluish-green; a moderate slightly outwards-curved white line from beneath costa near apex to $\frac{3}{5}$ of inner margin: cilia light bluish-green. Hindwings with hindmargin rounded, somewhat bent on vein 4; 3 and 4 short-stalked; white, very slightly greenish-tinged; a very faint bent greenish line about $\frac{2}{3}$; a pale green hindmarginal line; cilia pale whitish-green.

Melbourne, Victoria; Blue Tiers, Tasmania; three specimens.

43. *Iod. gratiosata*, Gn.

(*Nemorina gratiosata*, Gn. ix, 351, pl. xvii, 1.)

♂. 26 mm. Head and palpi orange. Antennæ reddish-ochreous. Thorax green. Abdomen ochreous-yellowish. Legs

dark crimson-fuscous. Forewings with costa slightly arched, hindmargin oblique, slightly rounded; veins 3 and 4 from a point, 6 out of 9, 11 anastomosing with 12 and then with 10; emerald-green; costa narrowly ochreous-yellow; a nearly straight snow-white line from near costa at $\frac{4}{5}$ to near inner margin at $\frac{2}{3}$; cilia emerald-green. Hindwings with hindmargin rounded; veins 3 and 4 from a point; bright ochreous-yellow; cilia ochreous-yellow.

Victoria and Tasmania; two specimens (Coll. Simson and Lucas).

44. *Iod. beryllina*, n. sp.

♀. 23 mm. Head deep orange, face with a green linear mark on each side, fillet whitish-ochreous, crown with two green dots. Palpi orange, terminal joint short. Antennæ whitish-ochreous. Thorax emerald-green, shoulders orange, beneath with a few hairs. Abdomen white. Legs fuscous-crimson, beneath ochreous-white, anterior coxæ green, posterior legs crimson-whitish. Forewings with costa hardly arched, hindmargin obliquely rounded; veins 3 and 4 separate, 6 out of 9, 11 anastomosing with 12 and then with 10; emerald-green; costal edge ochreous-yellow; cilia pale whitish-green. Hindwings with hindmargin irregularly rounded, bent on vein 4; 3 and 4 separate; whitish-green, becoming white towards costa anteriorly; cilia pale whitish-green.

Geraldton, West Australia; one specimen in November.

45. *Iod. ochthaula*, n. sp.

♂♀. 20-22 mm. Face light brown, fillet whitish-ochreous, crown pale green, postorbital rims white. Palpi light brown, terminal joint short. Antennæ whitish-ochreous, pectinations 5. Thorax green, thinly hairy beneath. Abdomen white. Legs white, anterior pair brownish above, posterior tibiæ not thickened. Forewings with costa almost straight, hindmargin obliquely rounded; veins 3 and 4 separate, 6 out of 9, 11 anastomosing with

12 and then with 10; yellowish-green; costal edge whitish-ochreous except towards base and apex: cilia green, terminal half white. Hindwings with hindmargin unevenly rounded; veins 3 and 4 separate; white, faintly greenish-tinged; cilia greenish-white.

Carnarvon, West Australia; three specimens in October; appears to be attached to *Eucalyptus*.

46. *Iod. pyropa*, n. sp.

♂. 23-26 mm. Head orange, fillet ochreous-white. Palpi orange, terminal joint short. Antennæ ochreous-whitish, pectinations 8. Thorax light bluish-green, shoulders orange, slightly hairy beneath. Abdomen white. Legs fuscous-carmine, anterior coxæ green, posterior legs ochreous-whitish, tibiæ not thickened. Forewings with costa almost straight, hindmargin somewhat oblique, rounded; veins 3 and 4 separate, 6 out of 9, 11 anastomosing with 12 and then with 10; light bluish-green; costal edge light ochreous-yellowish: cilia pale bluish-green. Hindwings with hindmargin unevenly rounded; veins 3 and 4 separate; green-whitish; cilia green-whitish, base greener.

Perth, West Australia; two specimens in November.

47. *Iod. halochlora*, n. sp.

♂. 23 mm. Face reddish-fuscous, fillet and postorbital rims white, crown pale green. Palpi carmine, terminal joint short. Antennæ white, pectinations 5. Thorax whitish-green, rather hairy beneath. Abdomen white, towards base pale whitish-green. Legs carmine, beneath white, posterior pair wholly white, tibiæ somewhat thickened, with groove containing pencil of white hairs. Forewings with costa almost straight, hindmargin somewhat oblique, almost straight; veins 3 and 4 separate, 6 from point with 9, 11 anastomosing with 12; whitish-green; costal edge whitish-ochreous: cilia whitish-ochreous, at apex carmine-tinged,

round anal angle white. Hindwings with hindmargin rather abruptly rounded on vein 6, thence almost straight; veins 3 and 4 short-stalked; whitish-green, base paler; cilia white.

Quorn, South Australia; one specimen in October.

48. *Iod. citrolimbaria*, Gn.

(*Chlorochroma citrolimbaria*, Gn. ix, 366.)

"♂♀. 25 mm. Face white, forehead ferruginous, fillet pale yellow, crown green. Antennæ yellow. Thorax green with a yellow dorsal line. Forewings bluish-green; costa and cilia pale yellow. Hindwings bluish-green; cilia pale yellow" (Guénée).

I have no reason to doubt that the above description indicates a species different from any I have seen, probably from Tasmania or South Australia.

49. *Iod. melocrossa*, n. sp.

(*Chlorochroma citrolimbaria*, Walk. 562, (nec. Gn.).)

♂. 24 mm. Head deep ferruginous-red, fillet white. Antennæ white. Thorax and abdomen green, with a pale yellow dorsal line not reaching anterior margin of thorax. Forewings with costa hardly arched, hindmargin slightly rounded, somewhat oblique; green; costal edge reddish-ochreous; hindmarginal line and cilia light ochreous-yellow. Hindwings with hindmargin moderately rounded; colour and cilia as in forewings.

Tasmania.

I have only seen the single British Museum specimen, from which the above description is drawn; I do not think Walker can have been right in identifying it as the preceding species.

50. *Iod. asemanta*, n. sp.

♂. 19-21 mm. Head green, fillet white. Palpi whitish-green, terminal joint short. Antennæ ochreous-white, pectinations 4.

Thorax bluish-green, slightly hairy beneath. Abdomen bluish-green, on sides white. Legs pale green, beneath white, posterior pair wholly white, tibiae rather thickened, with groove containing pencil of white hairs. Forewings with costa almost straight, hindmargin rather oblique, almost straight; veins 3 and 4 from a point, 6 from point with 9, 11 anastomosing with 12; bluish-green; costal edge whitish-ochreous, extreme edge sometimes carmine; a faint darker green discal dot: cilia light green, tips whitish. Hindwings with hindmargin rounded; veins 3 and 4 short-stalked; bluish-green; a faint darker green discal dot; hardly perceptible traces of a paler dentate line at $\frac{2}{3}$; cilia light green, tips whitish.

Carnarvon, West Australia; two specimens in October.

51. *Iod. centrophylla*, n. sp.

♂. 22-25 mm. Head bluish-green, fillet white. Palpi green, terminal joint moderate. Antennae white, pectinations 6. Thorax bluish-green, slightly hairy beneath. Abdomen bluish-green, sides white. Legs white, anterior pair green above, middle pair greenish-tinged, posterior tibiae not thickened. Forewings with costa moderately arched, hindmargin obliquely rounded; veins 3 and 4 from a point or short-stalked, 6 separate or out of 9, 11 anastomosing with 12 and then with 10; bluish-green, thinly irrorated with olive-green; costal edge yellow-ochreous; lines slender, subdentate, slightly darker olive-green, obsolete near costa; first from $\frac{1}{3}$ of costa to $\frac{2}{5}$ of inner margin; second from $\frac{2}{3}$ of costa to $\frac{2}{3}$ of inner margin, rather curved outwards on upper $\frac{2}{3}$; a deep green discal dot: cilia bluish-green, terminal half white. Hindwings with hindmargin strongly bent and slightly projecting angularly on vein 4; 3 and 4 stalked; colour, discal dot, second line, and cilia as in forewings, but second line more curved.

Sydney, New South Wales; Melbourne, Victoria; George's Bay, Tasmania; in November and December, three specimens.

52. *Iod. neptunus*, Butl.

(*Chlorochroma neptunus*, Butl., Trans. Ent. Soc. Lond. 1886, 435.)

♀. 26 mm. Head green, fillet white. Palpi green. Antennæ white. Thorax green. Abdomen green, sides white. Anterior legs yellow-ochreous, coxæ green. Forewings bluish-green; costal edge ochreous-white; lines slender, slightly waved, whitish; first hardly traceable; second from $\frac{2}{3}$ of costa to $\frac{2}{3}$ of inner margin, almost straight; a dark green transverse discal dot: cilia green, tips whitish. Hindwings with hindmargin rounded, somewhat bent; colour, discal dot, second line, and cilia as in forewings, but second line curved.

Queensland. I have described the British Museum type, which is the only one I have seen.

53. *Iod. inchoata*, Walk.

(*Chlorochroma inchoata*, Walk. 563.)

♀. 21-25 mm. Head green, fillet white (face partly brownish?). Forewings green; costa narrowly whitish: cilia yellowish-white. Hindwings green; cilia yellowish-white.

Said to be from New South Wales. I have described the two specimens in the British Museum, which appear to be a good and distinct species, but the head is in bad condition.

54. *Iod. carenaria*, Gn.

(*Chlorochroma carenaria*, Gn. ix, 366.)

♂♀. 36 mm. Face brownish-red, fillet and crown pale yellow. Palpi brownish-red, beneath and at base yellow, terminal joint short. Antennæ pale yellow, pectinations reddish-tinged. Thorax green, posteriorly with a pale yellow dorsal line. Abdomen green, with a pale yellowish dorsal line, sides and apex white. Legs

ochreous, beneath whitish, anterior coxæ and anterior and middle femora reddish-ochreous, posterior legs ochreous-white, tibiæ in ♂ not thickened. Forewings with costa slightly arched, hindmargin oblique, hardly rounded; veins 3 and 4 from a point, 6 separate; green; costal edge whitish-ochreous, base ferruginous; first line straight, whitish, not reaching costa; second line whitish, slightly curved, not dentate, from near costa at $\frac{3}{4}$ to $\frac{2}{3}$ of inner margin: cilia pale yellowish, pinkish-tinged. Hindwings with veins 3 and 4 stalked; colour, second line, and cilia as in forewings, but second line more irregular and sinuous.

Probably from South-East Australia. The above description is gathered from information supplied by M. Ragonot, who at my request kindly examined Guénéé's type in the National Museum at Paris; it appears to be undoubtedly a distinct species.

55. *Iod. submissaria*, Walk.

(*Geometra submissaria*, Walk. 529; *Chlorochroma carenaria*, ib. 562 (nec Gn.).)

♂♀. 24-29 mm. Face deep ferruginous, fillet white, crown ochreous-yellow or ferruginous. Palpi ochreous-yellow, terminal joint short. Antennæ white, pectinations 7. Thorax green, posteriorly with a whitish-ochreous dorsal line, shoulders ochreous-yellow, beneath somewhat hairy. Abdomen green, with a whitish-ochreous dorsal line, sides whitish-ochreous, apex white. Legs fuscous, beneath whitish, anterior coxæ and anterior and middle femora orange, posterior legs ochreous-white, tibiæ not thickened. Forewings with costa slightly arched, hindmargin somewhat oblique, slightly rounded; veins 3 and 4 separate, 6 separate or out of 9, 11 anastomosing with 12 and then with 10; bluish-green; costal edge whitish-ochreous, base ferruginous; first line sometimes very faintly indicated; second line indistinct or obsolete, slender, whitish, dentate, slightly curved, from towards costa at $\frac{3}{4}$ to $\frac{2}{3}$ of inner margin: cilia ochreous-white, base greenish-tinged. Hindwings with hindmargin rounded, somewhat bent on vein 4; 3 and 4 from a point; colour, second line, and cilia as in forewings.

Deloraine, Tasmania ; Mount Lofty, South Australia ; in November and December, four specimens.

56. *Iod. argocnemis*, n. sp.

♂. 24 mm. Face deep ferruginous, fillet white, crown light yellow-ochreous, its anterior edge ferruginous. Palpi light ochreous-yellowish, terminal joint very short, ferruginous. Antennæ whitish, pectinations 7, inner series crimson-tinged. Thorax bluish-green, on posterior half with a whitish-ochreous dorsal line, shoulders narrowly ochreous-yellow, beneath slightly hairy. Abdomen white, basal half green on back, with an ochreous-yellow dorsal line throughout. Anterior legs fuscous-crimson, coxæ silvery-white, with outer side ochreous, towards base green ; middle femora crimson-whitish, tibiæ fuscous-crimson, tarsi light ochreous ; posterior legs ochreous-whitish, femora silvery-white, tibiæ not dilated. Forewings with costa hardly arched, hindmargin rather oblique, slightly rounded ; veins 3 and 4 separate, 6 out of 9, 11 anastomosing with 12 and then with 10 ; bluish-green ; costa narrowly whitish-ochreous, base ferruginous : cilia ochreous-whitish. Hindwings with hindmargin rounded, slightly bent on vein 4 ; 3 and 4 separate ; colour and cilia as in forewings.

Perth, West Australia ; one specimen in November.

57. *Iod. monocyma*, n. sp.

♀. 25 mm. Face pinkish-fuscous, fillet ochreous-white, crown light green. Palpi white, towards apex pinkish, terminal joint short. Antennæ ochreous-whitish, beneath ferruginous. Thorax pale green, beneath slightly hairy. Abdomen white, on back pale greenish. Legs whitish, anterior pair above dull fuscous-carmine. Forewings with costa slightly arched, hindmargin rather obliquely rounded ; veins 3 and 4 from a point, 6 separate, 11 anastomosing with 12 ; pale yellowish-green ; costal edge whitish-ochreous, rosy-tinged ; a very faint irregular paler line from beneath costa at $\frac{3}{4}$ to inner margin at $\frac{2}{3}$; cilia whitish-green, tips more whitish.

Hindwings with hindmargin strongly rounded; veins 3 and 4 stalked; colour and cilia as in forewings; a faint pale irregular line about $\frac{3}{4}$, angulated in middle.

Carnarvon, West Australia; one specimen in October.

58. *Iod. dichloraria*, Gn.

(*Chlorochroma dichloraria*, Gn. ix, 365, pl. vi, 8.)

♂♀. 21-27 mm. Face deep crimson or fuscous-crimson, fillet ochreous-white, crown crimson in front, green behind. Palpi fuscous-crimson, base ochreous-whitish, terminal joint rather short. Antennæ ochreous-white, pectinations 7, inner series somewhat crimson-tinged. Thorax green, posterior half with an ochreous-yellow dorsal line, shoulders more or less crimson-tinged, beneath somewhat hairy. Abdomen green, with a pale ochreous-yellow dorsal line, apex and sides white. Legs fuscous-crimson, beneath white, posterior pair ochreous-white, posterior tibiæ in ♂ thickened, with groove containing pencil of white hairs. Forewings with costa slightly arched, hindmargin somewhat oblique, hardly rounded; veins 3 and 4 separate, 6 out of 9, 11 anastomosing with 12 and then with 10; bluish-green; costa narrowly pale yellow-ochreous, base crimson; lines very slender, dentate, whitish-ochreous; first from beneath costa at $\frac{1}{4}$ to $\frac{2}{5}$ of inner margin; second from beneath costa at $\frac{3}{4}$ to $\frac{5}{6}$ of inner margin, hardly curved: cilia whitish-ochreous, terminal half whitish-crimson. Hindwings with hindmargin rather bent on vein 4; 3 and 4 separate or short-stalked; colour, second line, and cilia as in forewings.

Newcastle and Sydney, New South Wales; Launceston, Tasmania; from September to December, rather common, frequenting *Acacia decurrens*, on which the larva feeds.

59. *Iod. vertumnaria*, Gn.

(*Chlorochroma vertumnaria*, Gn. ix, 365; *C. congenita*, Walk. 564.)

♂♀. 26-29 mm. Face crimson, fillet white, crown crimson in front, green behind. Palpi crimson, terminal joint short. Antennæ ochreous-whitish, pectinations 7, inner series crimson-tinged. Thorax green, posterior half with an ochreous-yellowish dorsal line, shoulders narrowly crimson, beneath slightly hairy. Abdomen green, with a pale ochreous-yellowish dorsal line, apex and sides white. Legs crimson, posterior pair white, tibiæ in ♂ somewhat thickened, with groove containing pencil of white hairs. Forewings with costa slightly arched, hindmargin somewhat oblique, hardly rounded; veins 3 and 4 separate, 6 out of 9, 11 anastomosing with 12; bluish-green; costa narrowly pale ochreous-yellowish, costal edge crimson; lines very faintly paler, dentate, first from beneath costa at $\frac{1}{4}$ to $\frac{2}{5}$ of inner margin, second from beneath costa at $\frac{3}{4}$ to $\frac{2}{3}$ of inner margin; an indistinct darker green discal dot: cilia pale crimson, with cloudy fuscous dots on veins. Hindwings with hindmargin rounded, slightly bent on vein 4; 3 and 4 from a point; colour, discal dot, second line, and cilia as in forewings.

Sydney, New South Wales; George's Bay, Tasmania; in December and June, three specimens.

60. *Iod. externa*, Walk.

(*Chlorochroma externa*, Walk. 564.)

♂. 25-28 mm. Head crimson, fillet ochreous-white, back of crown narrowly green. Palpi crimson, terminal joint short. Antennæ white, partially crimson-tinged, pectinations 6, inner series more or less crimson. Thorax green, shoulders crimson, beneath somewhat hairy. Abdomen green, apex and sides white. Legs crimson, posterior pair white, tibiæ in ♂ thickened, with groove containing pencil of white hairs. Forewings with costa

gently arched, hindmargin somewhat oblique, slightly rounded; veins 3 and 4 separate, 6 separate or out of 9, 11 anastomosing with 12; bluish-green; costa narrowly whitish-ochreous, costal edge crimson, at base and towards apex wholly crimson; lines slender, whitish, indistinct, dentate; first from beneath costa at $\frac{1}{4}$ to $\frac{2}{5}$ of inner margin, second from beneath costa at $\frac{3}{4}$ to $\frac{5}{8}$ of inner margin; a moderate black discal dot; a fine ochreous-white hindmarginal line: cilia light crimson, with more or less distinct blackish dots on veins. Hindwings with hindmargin rounded, slightly bent on vein 4; 3 and 4 short-stalked; colour, discal dot, second and hindmarginal lines, and cilia as in forewings.

Bathurst, New South Wales; Deloraine, Tasmania; Mount Lofty, South Australia; in November and December, four specimens.

61. *Iod. cadmaria*, Gn.

(*Chlorochroma cadmaria*, Gn. ix, 365; *C. vulnerata*, Butl., Ann. Mag. 1882, 91.)

♂♀. 21-23 mm. Head crimson, fillet white. Palpi crimson, terminal joint short. Antennæ ochreous-white, pectinations 6, inner series crimson. Thorax green, shoulders crimson, beneath slightly hairy. Abdomen green, apex and sides white. Legs crimson, posterior pair whitish, tibiæ in ♂ not thickened. Forewings with costa hardly arched, hindmargin somewhat oblique, slightly rounded; veins 3 and 4 from a point, 6 out of 9, 11 free or anastomosing with 12; bluish-green; an ill-defined crimson costal streak, costal edge white except towards base and apex; lines whitish or pale reddish, indistinct, slender, dentate; first about $\frac{1}{3}$, second from beneath costa at $\frac{3}{4}$ to $\frac{2}{3}$ of inner margin; a small reddish or fuscous discal dot, sometimes obsolete: cilia light crimson. Hindwings with hindmargin rounded, somewhat bent on vein 4; 3 and 4 short-stalked; colour, second line, and cilia as in forewings; a small fuscous-crimson discal spot, edged obscurely with whitish.

Sydney and Bathurst, New South Wales; Hobart, Tasmania; Mount Lofty, South Australia; in November and March, five specimens.

62. *Iod. ocyptera*, n. sp.

♂♀. 25-33 mm. Face deep ferruginous, becoming deep green on lower margin, fillet ochreous-white, crown green, postorbital rims white. Palpi white, upper surface green, terminal joint moderate or rather elongate. Antennæ whitish-ochreous, pectinations 7. Thorax green, slightly hairy beneath. Abdomen green, sides and apex white. Anterior legs deep fuscous-red, coxæ pale green; middle legs light reddish; posterior legs white, tibiæ in ♂ scarcely thickened (apparently grooved), tarsi reddish-tinged. Forewings with costa slightly arched, hindmargin somewhat oblique, slightly rounded; veins 3 and 4 from a point, 6 out of 9, 11 free; bluish-green, with numerous short transverse faint paler strigulae; costal edge whitish-ochreous; a very faintly indicated whitish line from towards costa at $\frac{4}{5}$ to $\frac{2}{3}$ of inner margin: cilia green, tips paler. Hindwings with hindmargin moderately rounded; veins 3 and 4 short-stalked; colour, strigulation, and cilia as in forewings.

Carnarvon and Geraldton, West Australia; in October and November, rather common, frequenting a leaf-bearing species of *Hakea* (*Proteaceae*).

63. *Iod. semicrocea*, Walk.

(*Geometra semicrocea*, Walk. 528; *Chlorochroma intermixta*, ib. 563; *C. decisissima*, ib. 564.)

♂♀. 28-33 mm. Head green, fillet and postorbital rims white. Palpi ochreous-whitish, terminal joint in ♂ moderate, in ♀ long. Antennæ whitish, pectinations 6. Thorax green, moderately hairy beneath. Abdomen green, sides and apex broadly white. Anterior legs pale reddish, coxæ pale green; middle legs reddish-whitish; posterior legs whitish, tibiæ in ♂ thickened, with groove containing pencil of hairs, tarsi ochreous-tinged. Forewings with costa gently arched, hindmargin somewhat oblique, slightly rounded; veins 3 and 4 separate, 6 separate or out of 9, 11 free or connected at a point with 12; bluish-green; a narrow ochreous-white costal

streak ; a faint dentate slender ochreous-whitish line from $\frac{3}{4}$ of costa to $\frac{2}{3}$ of inner margin : cilia whitish or pale reddish, basal half darker fuscous-crimson. Hindwings with hindmargin somewhat rounded, obtusely bent on vein 4 ; 3 and 4 short-stalked ; colour, line, and cilia as in forewings, but line rather curved.

Glen Innes (3500 feet) and Sydney, New South Wales ; Mount Lofty, South Australia ; in September and December, four specimens.

64. *Iod. albicosta*, Walk.

(*Geometra albicosta*, Walk. 529.)

♀. 32 mm. Head green, fillet white. Palpi with terminal joint moderately long. Thorax green. Abdomen green, apex white. Forewings with costa and hindmargin hardly rounded ; bluish-green, with numerous minute transverse whitish strigulae ; costa white : cilia whitish. Hindwings with colour, strigulae, and cilia as in forewings.

Probably from East Australia. I have described Walker's type, and have seen no other.

65. *Iod. ocycentra*, n. sp.

♂. 24 mm. Head green, fillet white. Palpi green, towards base whitish, terminal joint short. Antennae pale reddish, stalk white towards base. Thorax green. Abdomen green, sides and apex white, in ♂ with a tuft of hairs at base beneath. Legs white, anterior pair reddish-ochreous, posterior tibiae in ♂ thickened, with groove containing pencil of hairs, tarsi short. Forewings with costa somewhat arched, hindmargin slightly rounded, oblique ; veins 3 and 4 separate, 6 out of 9, 11 free ; rather bright green ; a narrow snow-white costal streak from near base to apex, costal edge posteriorly whitish-ochreous ; first line represented by three minute white dots ; a black discal dot ; an irregular series of minute white dots on veins from $\frac{3}{4}$ of costa to $\frac{2}{3}$ of inner margin ; a fine dark fuscous-reddish hindmarginal line,

interrupted by minute white dots on veins: cilia white, slightly yellowish-tinged, with grey spots on veins. Hindwings with hindmargin rounded, somewhat bent on vein 4; 3 and 4 short-stalked; colour, discal dot, posterior series of dots, hindmarginal line, and cilia as in forewings.

Cairns, Queensland; one specimen (Coll. Macleay).

66. *Iod. leucomerata*, Walk.

(*Eucrostis leucomerata*, Walk. Suppl. 1609.)

♂♀. 23 mm. Face whitish, forehead ferruginous, fillet white, crown green. Palpi whitish-ochreous, second joint ferruginous above, terminal joint in ♂ moderate, in ♀ long. Antennæ white. Thorax and abdomen green. Anterior legs ochreous, middle and posterior pair white. Forewings with costa slightly arched, hindmargin rather oblique, almost straight; veins 3 and 4 stalked, 6 out of 9, 11 free; green; costal edge slenderly white, at base and apex yellowish; lines indicated by irregular dark fuscous-red dots on veins; first from $\frac{1}{5}$ of costa to $\frac{1}{4}$ of inner margin; second from $\frac{2}{3}$ of costa to $\frac{2}{3}$ of inner margin, irregularly curved; a small deep brown-red discal spot, containing a leaden-metallic linear mark; a fine interrupted dark brown-red hindmarginal line, with leaden-metallic reflections: cilia ochreous-white, with a reddish-brown apical spot. Hindwings with hindmargin rather bent on vein 4; 3 and 4 stalked; colour, second and hindmarginal lines, and cilia as in forewings; a round leaden-metallic discal spot, edged with deep brown-red, larger than in forewings, in ♂ much larger and more irregular.

Queensland and New South Wales; two specimens.

67. *Iod. rhodocosma*, n. sp.

♂♀. 26-30 mm. Head dull crimson, fillet white. Palpi crimson, base whitish, terminal joint long. Antennæ white, partially crimson-tinged. Thorax green, posteriorly rosy on back. Abdomen

brownish-rosy, apex and sides whitish. Anterior legs crimson, middle and posterior pair whitish (posterior tibiæ of ♂ broken). Forewings with costa somewhat arched, hindmargin rather obliquely rounded; veins 3 and 4 stalked, 6 out of 9, 11 free; bluish-green; a white costal streak, suffused with whitish-ochreous beneath, becoming rosy towards base and apex; markings brownish-rosy or purplish; lines rather thick, irregularly dentate, curved; first from $\frac{1}{5}$ of costa to $\frac{1}{3}$ of inner margin; second from $\frac{2}{4}$ of costa to $\frac{2}{3}$ of inner margin, dilated beneath; a small discal spot; a row of cloudy irregular hindmarginal spots, connected on margin, a larger one on anal angle touching second line: cilia brownish-rosy. Hindwings with hindmargin somewhat rounded, bent on vein 4; 3 and 4 short-stalked; colour, hindmarginal spots, and cilia as in forewings; a series of three cloudy spots from middle of costa to before middle of inner margin; a larger irregular discal spot beyond middle; second line from before apex to $\frac{3}{4}$ of inner margin, curved outwards and obsolete in middle, coalescing more or less with hindmarginal spots.

Newcastle and Sydney, New South Wales, in May; two specimens (Coll. Raynor and Australian Museum).

68. *Iod. buprestaria*, Gn.

(*Phorodesma buprestaria*, Gn. ix, 371, pl. vii, 4.)

♀. 36 mm. Palpi with terminal joint short. Thorax and femora hairy beneath. Abdomen grey-white, irrorated with brown, forming a series of triangular white spots. Forewings with veins 3 and 4 separate, 6 from point with 9, 11 free; green; costa suffused with white, irrorated with red-brown; first and second lines interrupted in disc, composed of white lunules, margined with purplish-brown; a reddish-brown hindmarginal streak, interrupted with white on veins; two white lunules at apex. Hindwings with veins 3 and 4 short-stalked; colour, second line, hindmarginal streak, and apical lunules as in forewings; an apical reddish-brown spot extending to second line.

Melbourne, Victoria; one specimen (Coll. Lucas). Guénée's description is said to be from a ♂; his figure is good, but description not very clear. The description given above is incomplete, owing to the single specimen seen being in imperfect condition.

69. *Iod. exotérica*, n. sp.

♀. 29 mm. Head ferruginous, lower margin of face, fillet, and back of crown white. Palpi ferruginous, base whitish, terminal joint moderately long. Antennæ white, ringed with fuscous. Thorax green, patagia ochreous, tips white. (Abdomen broken.) Legs ochreous, ringed with white. Forewings with costa moderately arched, hindmargin obliquely rounded; veins 3 and 4 from a point, 6 out of 9, 10 touching 12 at a point, 11 running into 12; bright green, with semitransparent whitish longitudinal streaks in cell and between veins; a bright ochreous costal streak; first line represented by a short white erect streak on inner margin at $\frac{2}{5}$, edged with dark reddish-brown; a transverse dark reddish-brown white-centred discal spot, preceded by a short longitudinal dark reddish-brown streak; second line almost straight, from costal streak at $\frac{3}{4}$ to inner margin at $\frac{1}{6}$, dark reddish-brown, containing a very fine white line; a moderate dark reddish-brown hindmarginal fascia, attenuated to a point at apex, containing a paler submarginal cloudy line, and darker hindmarginal lunules: cilia fuscous-reddish, base whitish. Hindwings with hindmargin unevenly rounded, bent on vein 4; 3 and 4 stalked; colour, discal spot and streak, and cilia as in forewings; second line and hindmarginal fascia similar, but merged together so as to form a moderately broad hindmarginal band containing a white line near its anterior edge.

Newcastle, New South Wales: one specimen (Australian Museum). This species may not be a true *Iodis*; it is the only species of the genus known to me in which vein 11 of the forewings runs into 12, and the facies is also peculiar, but in the absence of the ♂ it is of course impossible to decide with certainty.

70. *Iod. boisduvalaria*, Le G.

(*Geometra boisduvalaria*, Le G., Rev. Zool. 1841, 257 ;
Chlorodes mirandaria, Gn. ix, 379, pl. v, 7.)

♂♀. 30 mm. Head green, fillet white. Palpi with terminal joint moderate. Antennæ white. Thorax green, becoming white posteriorly, hairy beneath. Abdomen white. Femora hairy beneath. Forewings with costa gently arched, slightly sinuate, hindmargin rather oblique, hardly rounded ; 3 and 4 separate, 6 out of 9, 11 appressed to 12 at a point ; green ; a ferruginous streak, margined with white, along inner margin from base to $\frac{2}{3}$, apex attenuated ; first line moderately strong, white, from before $\frac{1}{3}$ of costa to $\frac{2}{5}$ of inner margin ; a white transverse linear mark in disc ; second line white, from $\frac{2}{3}$ of costa to before anal angle, sending a tooth inwards in middle and another near inner margin ; an inwards-curved white line from apex to hindmargin above anal angle, space between this and second line reddish-fuscous on dorsal half, mixed with ferruginous at its extremities : cilia reddish-fuscous, with a white basal line. Hindwings with hindmargin irregularly rounded and sinuate above anal angle ; veins 3 and 4 separate ; white, with two very indistinct straight pale greenish bands ; first median, second about $\frac{3}{4}$; an interrupted blackish mark on hindmargin above middle, and a small black spot in anal angle ; cilia brownish (imperfect).

Blue Tiers, Tasmania ; two specimens (Coll. Simson and Lucas). The specimens described are in some respects imperfect ; in particular the antennæ of the ♂ are broken towards the apex, so that I have not determined whether this is truly filiform ; I note the point, because Guénée rather appears to imply that it is not.

71. *Iod. partita*, Walk.

(*Comibaena partita*, Walk. 573, Butl. Ill. Het. vi, 71, pl. cxvii, 11 ; *C. felicitata*, Walk. 579.)

♂. 36 mm. Crown white. Palpi white, externally irrorated with dark reddish-fuscous, terminal joint long. Antennæ white.

Thorax white, anterior margin green. Abdomen white, base green. Forewings yellowish-green; costa narrowly white from $\frac{1}{4}$ to $\frac{4}{5}$; a triangular white spot on base of wing; a dark reddish-fuscous discal dot at $\frac{2}{5}$, surrounded by a whitish ring; lines slender, white; first from beneath costa at $\frac{1}{4}$ to inner margin at $\frac{1}{3}$, angulated below middle; second from $\frac{2}{3}$ of costa to $\frac{2}{3}$ of inner margin, upper half rather dentate, angulated at $\frac{3}{4}$ from costa; a subterminal white line from apex to anal angle, touching hindmargin in middle, each half rather curved inwards; space between second and subterminal lines suffused with whitish from near costa to below middle; a white semicircular anal blotch, speckled with reddish, anteriorly bounded by second line; a white hindmarginal line, marked with fine black dots on veins, one in middle and two on anal angle more distinct: cilia whitish, towards base pale greenish. Hindwings with hindmargin obtusely bent; yellowish-green; second and subterminal lines white, subdentate, strongly curved, towards lower extremity merged in a large clear white anal blotch; a white blotch, partly irrorated with reddish, extending on upper half of wing from second line to hindmargin, marked with a dark reddish somewhat inwards-curved fascia from apex of wing to middle of hindmargin, where it is dilated; a hindmarginal series of elongate blackish marks; cilia round apex white sprinkled with reddish, thence to middle dark reddish, on lower half whitish, towards base greenish.

Brisbane, Queensland; also from India. I have described the two specimens in the British Museum, and have seen no others; there is no doubt of their identity.

72. *Iod. iosticta*, n. sp.

♂♀. 32 mm. Head green, fillet white. Palpi green, terminal joint moderate. Antennæ white. Thorax green, rather hairy beneath. Abdomen green, with a dorsal series of white dots, sides and apex white. Legs ochreous-white, anterior tibiæ greenish-tinged, posterior tibiæ in ♂ thickened, with groove containing pencil of pale yellowish hairs. Forewings with costa

gently arched, hindmargin rather oblique, gently rounded; veins 3 and 4 from a point, 6 from point with 9, 11 free; green; costal edge snow-white; first line represented by five or six irregularly placed white dots; a small white ring in disc, its interior edge margined with reddish; a series of white dots on veins from costa near apex, curved outwards on middle third, terminating in a small erect white reddish-margined spot on inner margin at $\frac{3}{4}$; cilia green, barred with red on veins, with a white dot at base of each bar. Hindwings with hindmargin somewhat bent and rather projecting on vein 4; 3 and 4 short-stalked; colour, discal ring, posterior series of dots, and cilia as in forewings, but discal ring more elongate transversely.

Newcastle, New South Wales; two specimens.

73. *Iod. crossota*, n. sp.

♀. 23 mm. Face ochreous-brown, fillet whitish, crown pale green. Palpi dark fuscous-reddish, beneath ochreous-whitish, terminal joint rather long. Antennæ whitish-fuscous. Thorax pale green. Abdomen whitish, sprinkled with fuscous-reddish, base greenish. Legs whitish-ochreous. Forewings with costa gently arched, hindmargin oblique, slightly rounded; veins 3 and 4 separate, 6 out of 9, 11 free; light olive-green; costal edge whitish-ochreous, on posterior half thickly strigulated with dark fuscous; lines slender, irregular, whitish, indistinctly interrupted into spots; first from $\frac{1}{3}$ of costa to $\frac{2}{5}$ of inner margin, nearly straight; second from $\frac{2}{3}$ of costa to $\frac{4}{5}$ of inner margin, twice sinuate; a fine ochreous-whitish hindmarginal line, forming triangular dots on veins, and margined anteriorly by a dark fuscous line; cilia ochreous-whitish. Hindwings with hindmargin bent on vein 4 and produced into an acute triangular projection; veins 3 and 4 stalked; colour, second and hindmarginal lines, and cilia as in forewings.

Queensland; one specimen (Coll. Lucas).

74. *Iod. saturataria*, Walk.

(Chlorochroma saturataria, Walk. Suppl. 1609.)

♀. 28 mm. Head light red. Palpi light red, beneath white, terminal joint long. Antennæ pale reddish. Thorax green, with a large light red posterior spot. Abdomen light red, base green. Legs white, anterior pair red. Forewings thinly scaled, green, with scattered fine obscure reddish-whitish strigulæ; costa brown-reddish, strigulated with pale reddish; a cloudy red spot on inner margin towards base; a small transverse reddish discal spot, beneath which is a reddish suffusion; second line reddish-whitish, dentate, from $\frac{4}{5}$ of costa to $\frac{3}{4}$ of inner margin: cilia light red, with a pale basal line. Hindwings with colour, strigulæ, second line, and cilia as in forewings.

Probably from Queensland; described from the British Museum type.

75. *Iod. metaspila*, Walk.

(Comibæna metaspila, Walk. 580.)

♀. 32 mm. Head green, margins of eyes white. Palpi with terminal joint moderately long. Thorax green, with brown-reddish posterior spot. Abdomen reddish or whitish, base green. Anterior tibiæ and tarsi rosy, ringed with white. Forewings thinly scaled, green, with numerous obscure whitish strigulæ; costa reddish-brown, strigulated with red-whitish; an obscure pale reddish spot on inner margin before middle; second line slender, whitish, dentate: cilia brown-reddish, barred with green. Hindwings with colour, second line, and cilia as in forewings.

Probably from Queensland; two specimens in British Museum.

76. *Iod. insperata*, Walk.

(Thalassodes insperata, Walk. 555.)

♂. 27 mm. Head green, fillet and lower half of face white. Palpi greenish-fuscous, beneath white, terminal joint moderately

long. Antennæ white, spotted with dark fuscous, pectinations $2\frac{1}{2}$. Thorax green, with a white posterior spot, hairy beneath. Abdomen white, more or less green on back. Legs white, anterior tibiæ and tarsi banded with dark fuscous, posterior tibiæ with groove containing pencil of hairs. Forewings with costa moderately arched, hindmargin rounded, rather oblique; veins 3 and 4 separate, 6 separate, 11 free; bright green, rather thinly scaled; costa except at base white irrorated with dark fuscous; lines slender, white; first from $\frac{1}{3}$ of costa to $\frac{2}{5}$ of inner margin, slightly curved, rather irregular; second from $\frac{3}{4}$ of costa to $\frac{3}{4}$ of inner margin, slightly curved, tending to emit short linear teeth posteriorly on veins, forming a small spot on costa and a larger dilated spot towards inner margin; a subterminal series of irregular white marks; a hindmarginal series of white dots: cilia white, basal half green with white apical and median dots, on costa grey. Hindwings with hindmargin rounded, with an obtuse triangular projection on vein 4; veins 3 and 4 from a point or short-stalked; colour, second line, subterminal and hindmarginal series, and cilia as in forewings; basal half somewhat strigulated with white, especially towards inner margin; two semilunate white submarginal marks at apex, enclosing some dark fuscous or reddish scales on hindmargin; an angulated white submarginal mark on median projection; costal cilia white.

♀. 35 mm. Head fuscous on crown, face green, fillet and lower part of face white. Palpi fuscous, beneath white, terminal joint long. Antennæ white. Thorax green, with a pale fuscous posterior spot. Forewings formed as in ♂; green; costa pale whitish-fuscous irrorated with dark fuscous; first line fuscous-whitish, narrow, straight, obscure, proceeding from an oblique dark fuscous mark on costa at $\frac{1}{5}$ to $\frac{1}{3}$ of inner margin; a triangular projection from costal streak before middle; second line slender, white, anteriorly finely margined with dark fuscous, from costa at $\frac{3}{4}$ to inner margin before $\frac{3}{4}$, irregularly sinuate, rectangularly bent so as to touch hindmargin below middle; space between second line and hindmargin whitish-fuscous, irregularly spotted with dark fuscous, including a green blotch towards costa; a dark

fuscous interrupted hindmarginal line : cilia pale whitish-fuscous. Hindwings formed as in ♂; colour, second line, hindmarginal band and line, and cilia as in forewings.

Newcastle, New South Wales ; Melbourne, Victoria ; George's Bay, Tasmania ; in January, not uncommon locally. The larva is 10-legged, rough, brown ; segments 4-11 with very large flattened obliquely rising projections on each side of back, these sometimes green ; a white spot on side of 11th segment : it feeds on *Exocarpus cupressiformis*. This curious larva was shown me by Mr. Kershaw, and is familiar to the Melbourne entomologists. The extraordinary dissimilarity between the sexes in the case of this and the following species is very curious ; I am not aware of the purpose served by it, but the differences are quite analogous in the two species.

77. *Iod. pieroides*, Walk.

(*Comibaena pieroides*, Walk. 580 ; *Thalassodes scitissimaria*, ib. 1564 ; *Comibaena calcinata*, Feld. pl. cxxvii, 23.)

♂. 32 mm. Head white, mixed with blue-green. Palpi blue-green, beneath white, terminal joint moderately long. Antennæ white, pectinations $2\frac{1}{2}$. Thorax and abdomen white, closely mixed with blue-green. Legs white, anterior tibiæ and tarsi banded with fuscous, posterior tibiæ with groove including pencil of hairs, apical projection unusually long. Forewings with costa gently arched, hindmargin waved, rather obliquely rounded ; veins 3 and 4 separate, 6 from a point with 9, 11 free ; blue-green, thinly scaled, with numerous scattered short white transverse strigule, closest towards base ; posterior half of costa suffused with white and irrorated with brownish ; lines moderately broad, fascia-like, white ; first from $\frac{1}{3}$ of costa to $\frac{2}{5}$ of inner margin, closely followed by a white discal spot touching costa ; second from $\frac{3}{4}$ of costa to $\frac{3}{4}$ of inner margin, slightly curved, double, margins subdentate : cilia whitish, basal half green. Hindwings with inner margin long, hindmargin rounded, crenulate, bent on

vein 4; veins 3 and 4 short-stalked; colour and markings as in forewings, but strigulae on median area more scanty and dot-like, interspace of second line with a small ferruginous mark beneath costa.

♀. 38 mm. Head ferruginous, forehead green. Thorax green, with a quadrate ferruginous posterior spot. Forewings with groundcolour and strigulae as in ♂; markings ferruginous strigulated with paler; a costal streak, dilated and extending to inner margin at base; first line as a narrow very irregular fascia from $\frac{1}{4}$ of costa to $\frac{1}{3}$ of inner margin; a short transverse spot from costa before middle; a moderately broad hindmarginal band, containing a green spot towards costa near its anterior edge, anterior edge sinuate below costa and rather deeply concave below middle: cilia light fuscous-grey, with paler median and terminal lines. Hindwings with transverse vein margined with ferruginous; hindmarginal band as in forewings, but green spot almost obsolete.

Duaringa and Brisbane, Queensland; several specimens. Mr. W. H. Miskin has bred both sexes from the larva.

78. *Iod. byrsopsis*, Meyr.

(*Thalassodes byrsopsis*, Meyr., [Proc. Linn. Soc. N.S.W. 1886, 249.]

♀. 34-40 mm. Face reddish-brown, fillet whitish, crown light green. Palpi reddish-brown, white beneath. Antennae pale reddish-ochreous, base whitish. Thorax light green. Abdomen whitish, mixed with pale green. Legs whitish, anterior tibiae and tarsi light ferruginous. Forewings with costa slightly arched, hindmargin slightly rounded; veins 3 and 4 from a point, 6 out of 9, 11 free; light bluish-green, with very obscure scattered transverse whitish strigulae; costal edge whitish-ochreous; a nearly straight very obscure whitish line from middle of costa to $\frac{2}{5}$ of inner margin: cilia pale green, tips whitish. Hindwings with hindmargin obtusely bent on vein 4; colour and cilia as in

forewings ; a very obscure whitish line from $\frac{3}{5}$ of costa to vein 2 at $\frac{3}{4}$, thence angulated and proceeding, twice waved, to inner margin at $\frac{3}{4}$.

Queensland ; one specimen (Coll. Lucas). Also from New Guinea.

10. AGATHIA, Gn.

Face smooth. Antennæ in ♂ filiform, minutely ciliated. Palpi moderately long, second joint shortly rough-scaled, terminal joint elongate, cylindrical. Posterior tibiæ with all spurs present. Forewings with veins 3 and 4 separate, 6 almost from point with 9, 10 out of 9, 11 free. Hindwings with veins 3 and 4 separate, 6 and 7 from a point.

A small Indo-Malayan genus, of which the species are at the same time variable and closely-allied.

79. *Ag. asterias*, n. sp.

♂♀. 34-36 mm. Head, palpi, antennæ, and thorax dark fuscous-reddish mixed with whitish ; back of crown, anterior half of thorax and a posterior spot green. Abdomen reddish-ochreous mixed with whitish. Legs ochreous-white. Forewings with costa moderately arched, hindmargin slightly rounded, oblique ; bright yellowish-green ; markings fuscous-reddish, mixed with whitish and margined with darker ; a narrow basal fascia ; a moderate costal streak, irrorated with dark grey, indented beyond basal fascia ; a moderate or rather narrow slightly curved fascia from $\frac{2}{5}$ of costa to middle of inner margin, constricted above and below middle ; a hindmarginal band, broad towards costa and containing in upper half a variable irregular-oval green blotch not touching margins, more or less strongly narrowed on lower half, anterior edge sinuate, indented above middle ; sometimes one or two whitish spots indicated on hindmargin below middle ; a blackish irregular hindmarginal line, sometimes nearly obsolete : cilia whitish-ochreous. Hindwings with hindmargin rounded, unevenly

waved, projecting into a sharp triangular tooth on vein 4; colour, hindmarginal band, and cilia as in forewings; hindmarginal projection dark reddish, surmounted by a small clear white spot.

Cape York and Cooktown, Queensland; Port Darwin, North Australia; several specimens (Coll. Macleay and Brit. Mus.). Differs from *A. carissima*, Butl., (Japan) by presence of white spot above projection of hindwings, and by median fascia (representing first line) of forewings not being connected with the hindmarginal band on inner margin.

11. HELIOMYSTIS, n. g.

Palpi moderate, porrected, second joint densely rough-haired beneath, terminal joint rather short, obtuse. Antennæ in ♂ bipectinated almost to apex. Thorax posteriorly crested, beneath densely hairy. Abdomen with strong dorsal crests. Posterior tibiæ in ♂ somewhat dilated, grooved, all spurs present. Forewings with veins 3 and 4 separate, 6 from point with 9, 10 free, 11 anastomosing with 12. Hindwings with veins 3 and 4 separate, 6 and 7 closely approximated at base.

80. *Hel. electrica*, n. sp.

♂. 45 mm. Head, palpi, and thorax brownish, sprinkled with whitish and black, patagia marked with black; palpi externally suffused with black. Antennæ fuscous, pectinations 4. Abdomen whitish-ochreous, crests mixed with black, towards middle large. Legs blackish ringed with white, posterior tibiæ whitish. Forewings with costa slightly arched, hindmargin rounded, rather oblique, waved; light brown, with scattered short dark grey strigulæ, especially towards costa and inner margin; a short interrupted blackish streak from base near inner margin; lines slender, black; first from $\frac{1}{7}$ of costa to middle of inner margin, sinuate beneath costa, triangularly indented below middle; a linear-crescentic black discal spot, with a few white scales, surrounded by a brown suffusion; second line from beyond middle of

costa to $\frac{3}{4}$ of inner margin, strongly acutely angulated in middle, upper half straight, lower half curved inwards, below middle twice dentate outwards; a very fine acutely dentate white subterminal line, nearly obsolete on lower half; three short longitudinal black streaks between veins above middle, cut by subterminal line, terminating in hindmargin, and a fourth less distinct similar streak above anal angle; hindmargin elsewhere with black dots between veins: cilia light brown, reddish-tinged, sprinkled with whitish. Hindwings with hindmargin crenate, tolerably rounded, slightly bent in middle; bright orange; a dark grey transverse linear discal spot; a moderately broad light brown hindmarginal band, irrorated with blackish-grey, anterior margin and towards costa almost wholly suffused with blackish, anterior margin angularly emarginate above middle; a hindmarginal series of blackish crescentic marks; cilia light brown, reddish-tinged.

Victoria; one specimen (Coll. Lucas).

12. CRYPSIPHONA, n. g.

Palpi moderate, obliquely ascending, second joint roughly scaled, terminal joint rather or very short. Antennæ in ♂ bipectinated, towards apex filiform. Thorax and femora densely hairy beneath, thorax sometimes crested in front. Posterior tibiæ in both sexes without middle-spurs; in ♂ with groove containing pencil of hairs. Forewings with veins 3 and 4 separate, 6 separate or out of 9, 10 out of 9, 11 anastomosing with 12 and then with 10. Hindwings with veins 3 and 4 separate, 6 and 7 separate.

A. Face black 83. *occultaria*.

B. Face not black

a. Forewings with black markings..... 81. *melanosema*.

b. Forewings without black markings..... 82. *amaura*.

81. *Cryps. melanosema*, n. sp.

♂♀. 29-34 mm. Head grey-whitish irrorated with grey. Palpi white, suffused with dark grey towards apex, terminal joint short.

Antennæ grey-whitish, in ♂ pectinated to near apex, pectinations a 2, b $2\frac{1}{2}$. Thorax grey-whitish suffused with fuscous-grey, crest small, black in front. Abdomen grey-whitish, with a few dark grey scales, and sometimes a fuscous-grey dorsal streak. Legs dark fuscous, ringed with whitish, posterior tibiæ suffused with whitish. Forewings rather elongate-triangular, costa gently arched, hindmargin obliquely rounded; grey-whitish, irregularly suffusedly mixed with pale greyish-fuscous, and with a few scattered black scales; a short black mark on middle of base; lines black, tolerably strong, tending to be interrupted; first from $\frac{1}{4}$ of costa to $\frac{2}{3}$ of inner margin, unevenly curved outwards; second from before $\frac{3}{4}$ of costa to $\frac{3}{4}$ of inner margin, dentate, sinuate inwards below middle; a very oblique transverse-linear black discal spot, lower extremity terminating in a whitish ill-defined spot which reaches and interrupts second line; an indistinct pale strongly dentate subterminal line, preceded and followed by darker shades; a hindmarginal row of black dots between veins: cilia whitish, with a faint grey line, and sometimes light reddish-grey spots on hindmarginal dots. Hindwings with hindmargin rounded, crenate, inner margin long; grey-whitish; a fine oblique transverse linear dark grey discal spot; a sinuate dentate dark grey line beyond middle, more or less indistinct or nearly obsolete; an indistinct whitish dentate subterminal line, preceded by a broad light fuscous-grey shade, obsolete towards costa, and followed by a narrower less distinct similar shade; a hindmarginal row of black dots between veins; cilia grey-whitish, towards base reddish-tinged. Forewings beneath grey, disc and inner margin paler, apex white; an oblique black discal spot. Hindwings beneath whitish; discal spot as above; a transverse oval blackish blotch at $\frac{2}{3}$, not nearly reaching margins.

Albany, West Australia; from September to December, five specimens on fences.

82. *Cryps. amaura*, n. sp.

♀. 33-35 mm. Head, antennæ, thorax, and abdomen pale whitish-ochreous, more or less sprinkled with fuscous; face with

obscure fuscous transverse bar ; thorax with small anterior crest. Palpi fuscous, beneath white towards base, terminal joint moderately short. Legs whitish, irrorated with ochreous, anterior pair suffusedly banded with grey. Forewings rather elongate-triangular, costa gently arched towards base, hindmargin obliquely rounded, waved ; very pale whitish-ochreous, faintly reddish-tinged, irrorated with grey ; lines not traceable, except a faint whitish dentate subterminal ; a very obscure oblique transverse-linear grey discal spot ; a hindmarginal row of blackish-grey dots between veins : cilia whitish, towards base reddish-tinged. Hindwings with hindmargin rounded, crenate, inner margin long ; colour, discal spot, hindmarginal dots, and cilia as in forewings, but groundcolour paler towards base ; a very obscure cloudy grey line at $\frac{3}{4}$. Forewings beneath whitish, suffused with pale reddish except in middle of disc, at apex, and towards inner margin ; a small black discal spot ; a rather larger blackish spot near hindmargin above middle. Hindwings beneath whitish ; a small black discal spot ; a large transverse-oval blackish blotch at $\frac{3}{4}$, not reaching margins, surrounded by a pale reddish suffusion.

Albany, West Australia ; in September and October, two specimens on fences.

83. *Cryps. occultaria*, Don.

(*Phalena occultaria*, Don., Ins. N. Holl. 36 ; *Hypochroma occultaria*, Gn. ix, 281.)

♂♀. 32-40 mm. Head and thorax light grey, face black ; thorax not crested. Palpi whitish, apex grey, terminal joint very short. Antennæ pale grey, in ♂ pectinated to $\frac{2}{3}$, pectinations a3, b4. Abdomen grey-whitish, irrorated with dark grey, in ♂ margined with dense yellowish-tinged hairs. Legs dark grey, posterior tibiæ whitish. Forewings broad, costa hardly arched, hindmargin waved, obliquely rounded ; pale whitish-grey, finely irrorated with dark grey ; lines slender, dark fuscous, partially interrupted or obscure, dentate ; first from $\frac{1}{4}$ of costa to $\frac{2}{3}$ of inner margin ; second from $\frac{2}{3}$ of costa to $\frac{2}{3}$ of inner margin, at first

perpendicular to costa, below middle abruptly curved round to beneath discal spot, and again sharply curved to inner margin; a long transverse-linear dark fuscous discal spot; a pale cloudy waved subterminal line, preceded and followed by darker shades; a series of dark fuscous dots on hindmargin between veins: cilia grey-whitish, with a faint greyish line. Hindwings with hindmargin rounded, crenate, inner margin long; colour and markings as in forewings, but first line absent, second obsolete towards inner margin. Forewings beneath whitish, with two spots before middle, a median spot, and a posterior series, confluent on upper half, blackish; a triangular space below middle from median spot to posterior series whitish-ochreous; a crimson transverse mark near before upper half of posterior series; an ochreous-grey hindmarginal fascia, its anterior edge dentate. Hindwings beneath whitish; sometimes a crimson transverse-linear discal spot; an ochreous-grey hindmarginal fascia; preceded first by a blackish and then by a dull crimson fascia.

Var. *a.* Crimson markings of undersurface obsolete.

Townsville, Duaringa, and Gayndah, Queensland; Newcastle, Sydney, and Bathurst, New South Wales; Melbourne, Victoria; Hobart, Tasmania; Mount Lofty, South Australia; Albany, West Australia; in September, October, March, and June, generally common, at rest on fences and rock-faces. The larva feeds on *Eucalyptus*. I have never seen this common insect on the wing, and it probably flies only in the dark; by day it always rests with the wings closely appressed to a flat surface; the object of the crimson markings I am therefore unable to conjecture.

13. HYPOCHROMA, Gn.

Palpi moderate, porrected, second joint roughly scaled, above and beneath terminal joint moderate. Antennæ in ♂ bipectinated, towards apex filiform, Thorax and femora densely hairy beneath, thorax sometimes crested. Abdomen sometimes crested. Posterior tibiæ in ♂ somewhat dilated, grooved, generally containing pencil

of hairs, all spurs present. Forewings with veins 3 and 4 separate, 6 separate or out of 9, 10 out of 9, 11 anastomosing with 12 and then with 10 or sometimes free. Hindwings with veins 3 and 4 separate, 6 and 7 separate or rarely stalked.

A genus of moderate size, characteristic of the Indo-Malayan and Australian regions. It is generally distinguishable from *Iodis* by the separation of veins 6 and 7 of the hindwings, but in the case of the aberrant species *I. paratorna* only by the palpi, which are densely rough-scaled above and beneath. The neural variation within the genus is analogous to that occurring in *Iodis*.

- | | |
|---|----------------------------|
| 1. Hindwings discolourous with forewings ... | 2. |
| Hindwings concolourous with forewings... | 3. |
| 2. Forewings greenish | 87. <i>metarhodata</i> . |
| Forewings grey | 85. <i>paratorna</i> . |
| 3. Wings greenish | 4. |
| Wings not greenish..... | 7. |
| 4. Forewings with blackish band beyond
second line | 90. <i>emiliaria</i> . |
| Forewings without blackish band beyond
second line | 5. |
| 5. Discal spot of forewings linear | 91. <i>muscosaria</i> . |
| Discal spot of forewings not linear..... | 6. |
| 6. First line of forewings strongly indented
beneath costa | 89. <i>acanthina</i> . |
| First line of forewings almost straight ... | 88. <i>hypochromaria</i> . |
| 7. Hindwings with three much stronger
hindmarginal teeth..... | 84. <i>Wilsoni</i> . |
| Hindwings with teeth nearly equal, short | 8. |
| 8. Discal spot of hindwings bent | 93. <i>erebata</i> . |
| Discal spot of hindwings straight | 9. |
| 9. Second line of forewings moderately
curved..... | 10. |
| Second line of forewings not curved | 86. <i>percomptaria</i> . |
| 10. Wings densely irrorated with blackish-grey | 92. <i>deteriorata</i> . |
| Wings not irrorated with blackish-grey... | 94. <i>crenaria</i> . |

84. *Hyp. Wilsoni*, Feld.

(*Hypochroma Wilsoni*, Feld. pl. cxxv, 4.)

♀. 44 mm. Head, antennæ, thorax, abdomen, and legs whitish somewhat mixed with blackish, abdomen with two obscure darker dorsal lines. Palpi dark grey, towards base white, terminal joint moderate. Forewings rather elongate-triangular, costa hardly arched, hindmargin rather obliquely rounded, crenate; veins 5 and 6 closely approximated at origin, 11 anastomosing with 12 and then with 10; grey, densely irrorated with white; veins partially marked with blackish; lines very obscure, slender, grey; first from $\frac{1}{5}$ of costa to $\frac{1}{3}$ of inner margin, curved, thrice very acutely dentate; second from $\frac{2}{3}$ of costa to middle of inner margin, straight, very acutely dentate, teeth forming black dots on veins; a cloudy grey transverse discal spot; a very indistinct dentate white subterminal line; a hindmarginal series of wedge-shaped black dashes between veins: cilia whitish. Hindwings with hindmargin crenate, teeth on veins 2-4 conspicuously more prominent, inner margin long; veins 6 and 7 remote; grey, densely irrorated with white, on basal half suffused with white; veins posteriorly dark grey; a crescentic dark grey discal spot; a curved cloudy grey fascia at $\frac{3}{4}$; hindmarginal dashes and cilia as in forewings. Undersurface of both wings whitish, with a blackish-fuscous posterior band, on forewings reaching only from near costa to below middle.

Melbourne, Victoria; one specimen (Coll. Lucas).

85. *Hyp. paratorna*, n. sp.

♂. 29 mm. Head, palpi, and thorax brownish, finely irrorated with whitish; palpi with a blackish spot towards base, terminal joint rather short; thorax crested posteriorly. Antennæ whitish-fuscous, pectinations 2. Abdomen whitish-fuscous. Legs fuscous-whitish, spotted with blackish (anterior pair broken). Forewings rather elongate-triangular, costa hardly arched, slightly sinuate,

hindmargin rounded, waved, rather oblique; vein 6 from point with 9, 11 anastomosing with 12 and then with 10; brownish, very finely irrorated with whitish towards posterior half, and with short scattered dark fuscous transverse strigulae; a blackish narrow-oblong longitudinal blotch extending from base of costa to first line below middle; lines slender, black, well-defined, slightly irregular; first from before $\frac{1}{4}$ of costa to $\frac{2}{5}$ of inner margin, straight; a fine transverse linear blackish discal spot; second line from $\frac{3}{4}$ of costa to $\frac{2}{3}$ of inner margin, lower third forming a strong angular indentation inwards to beneath middle of disc; a series of blackish-fuscous very irregular more or less confluent spots from costa before apex to before anal angle, sinuate inwards so as to touch second line above middle; an interrupted black hindmarginal line: cilia pale brownish, finely irrorated with whitish. Hindwings with hindmargin strongly unevenly rounded, prominent below middle, crenulate; veins 6 and 7 stalked; fuscous-whitish; a transverse linear fuscous discal spot; a rather broad fuscous hindmarginal band, containing one or two small darker spots above middle, and some dark strigulae towards anal angle; hindmarginal line and cilia as in forewings. Forewings beneath fuscous-whitish, with a dark fuscous discal spot, and a suffused fuscous spot on costa towards apex. Hindwings beneath whitish, sprinkled with fuscous, with a narrow transverse blackish discal spot, and a large blackish transverse oval posterior blotch, almost reaching margins.

South Australia; one specimen, without further record.

86. *Hyp. percomptaria*, Gn.

(*Hypochroma percomptaria*, Gn. ix, 280, pl. vi, 4.)

♂. 44 mm. Head, thorax, abdomen, and legs white mixed with black and brown, thorax with two parallel posterior transverse blackish lines. Palpi black, towards base white beneath. Antennae dark grey mixed with white. Abdomen with small crests. Forewings broad, costa hardly arched, hindmargin obliquely rounded, waved; ♂ separate, 11 free; white, slightly

brownish-tinged, densely irrorated with grey and black; a black almost basal transverse line; a straight black line from $\frac{1}{5}$ of costa to $\frac{1}{4}$ of inner margin, followed by a pale brownish-grey band; a short black transverse linear discal spot; second line black, somewhat waved irregularly, from $\frac{3}{4}$ of costa to $\frac{2}{3}$ of inner margin, followed by a pale line, beyond which the posterior area is wholly suffused with pale brownish, except a pale subdentate subterminal line; a black hindmarginal line: cilia whitish, obscurely spotted with grey. Hindwings with hindmargin unevenly crenate, inner margin long; veins 6 and 7 separate; colour and markings as in forewings, but subbasal and first lines absent. Undersurface of both wings white sprinkled with grey, with a broad cloudy blackish posterior fascia, constricted in middle, tinged with red on margins, on forewings only reaching from near costa to below middle.

Newcastle, New South Wales; Melbourne, Victoria; Albany, West Australia; three specimens. In one specimen vein 6 of the forewings was furcate at base, so as to form a small auxiliary cell, a curious individual deformity.

87. *Hyp. metarhodata*, Walk.

(*Scotosia metarhodata*, Walk. 1724.)

♂♀. 27 mm. Head whitish, slightly greenish-tinged, with a few black scales, and two black dots on face. Palpi greenish-whitish with a blackish band, terminal joint short. Antennæ whitish, reddish-tinged, spotted with grey. Thorax greenish-whitish, with a blackish transverse median bar, shoulders and posterior extremity spotted with black. Abdomen ochreous-whitish, rosy-tinged, mixed with blackish on back, with two strong grey crests towards middle. Legs whitish, anterior and middle pair banded with blackish. Forewings rather elongate-triangular, costa hardly arched, hindmargin waved, rather obliquely rounded; 6 from point with 9, 11 free; olive-green, with numerous short blackish transverse strigulae; a suffused dentate blackish line

very near base ; lines narrow, black, slightly irregular, somewhat interrupted ; first from $\frac{1}{5}$ of costa to $\frac{2}{5}$ of inner margin, posteriorly suffused with dark grey, which forms a blotch on inner margin reaching second line ; a white suffusion in disc, surrounding an irregular transverse discal spot mixed with blackish ; second line from $\frac{2}{3}$ of costa to $\frac{2}{3}$ of inner margin, strongly angulated outwards in middle but angle subtruncate, upper half almost straight, lower half slightly sinuate, followed on costa and inner margin by suffused white spots, and above angle by a small reddish spot ; a fine dentate white subterminal line, preceded by a dark grey suffusion, indicated, but only distinct towards costa ; a suffused grey hindmarginal blotch above, and another below middle ; an interrupted black hindmarginal line : cilia whitish, towards base greenish, barred with dark grey on veins. Hindwings with hindmargin rounded, crenate ; veins 6 and 7 separate ; pale whitish-rosy, dorsal third except a marginal streak pale greenish, with numerous short dark grey transverse strigulae ; an obscure grey discal spot ; a moderate suffused grey hindmarginal band, hardly extending to margins ; cilia on upper half whitish-rosy, on lower half light green, barred with dark grey, tips whitish.

Newcastle and Sydney, New South Wales ; in September, three specimens. Mr. G. Masters informs me that he once took the species in abundance on the stems of *Leptospermum*.

88. *Hyp. hypochromaria*, Gn.

(*Cleora hypochromaria*, Gn. ix, 234.)

♀. 34-35 mm. Head and thorax light olive-greenish ; face with a fuscous bar ; shoulders with a black spot. Palpi greenish-whitish, apex of basal joint, an apical band of second, and terminal joint except apex blackish, terminal joint moderate. Antennae ochreous-whitish, spotted with grey towards base. (Abdomen broken.) Legs ochreous-whitish, anterior pair banded with blackish, middle pair dotted with dark grey. Forewings moderate, costa hardly arched, faintly sinuate, hindmargin

rounded, crenulate, rather oblique; 6 from point with 9, 11 free; olive-greenish, somewhat mixed with whitish, and with a few fine scattered darker scales; an incomplete blackish line very near base; lines well-defined, black, subdentate; first from $\frac{1}{4}$ of costa to $\frac{1}{3}$ of inner margin, nearly straight; a narrow oval transverse discal spot outlined with black; second line from $\frac{2}{3}$ of costa to middle of inner margin, rectangularly bent outwards in middle, somewhat sinuate inwards near inner margin; a faint paler dentate subterminal line, margined anteriorly by an incomplete series of blackish marks; a hindmarginal series of black crescentic marks: cilia light olive-greenish, barred with blackish, tips whitish. Hindwings with hindmargin rounded, crenate; 6 and 7 separate; colour, second and subterminal lines, hindmarginal marks, and cilia as in forewings, but bend of second line below middle; discal spot rather oblique, transverse-linear, black. Undersurface of both wings pale whitish-ochreous, with strong blackish lines placed as above; discal spot of forewings sinuate-oval, of hindwings dot-like, blackish; a blackish hindmarginal band, including a small whitish spot on middle of hindmargin.

New South Wales; three specimens in poor condition (Austr. Mus.).

89. *Hyp. acanthina*, n. sp.

♂. 34-38 mm. Head pale greenish, face with two black spots. Palpi blackish, base of second and basal joints whitish-rosy, terminal joint moderate. Antennæ ochreous-whitish, rosy-tinged, irregularly spotted with dark grey, pectinations 4. Thorax greenish, irregularly mixed with black, posterior extremity with slight whitish-rosy crests. Abdomen pale greenish, with some black scales, with one prominent blackish crest above middle. Legs ochreous-white, anterior pair banded with black, middle pair spotted with black. Forewings moderate, costa almost straight, hindmargin rather obliquely rounded, waved; 6 from point with 9, 11 free; bluish-green, irregularly strigulated with olive-green,

and irrorated with black; costa spotted with black and whitish; veins partially lined with whitish-rosy; a blackish line near base; lines black, somewhat irregular, interrupted; first from $\frac{1}{4}$ of costa to $\frac{1}{3}$ of inner margin, somewhat curved, beneath costa sharply indented inwards and then outwards; an irregular transverse-oval discal spot outlined with blackish; second line from $\frac{2}{3}$ of costa to middle of inner margin, upper $\frac{2}{3}$ moderately curved outwards; a hardly paler dentate subterminal line, margined anteriorly by a blackish-grey shade; a hindmarginal row of black spots: cilia green, barred with dark fuscous, tips whitish. Hindwings with hindmargin rounded, crenate; 6 and 7 separate; colour, second and subterminal lines, hindmarginal spots, and cilia as in forewings; a cloudy blackish narrow transverse discal spot. Forewings beneath pale whitish-ochreous; first and second lines as above, blackish-grey; an oval blackish discal spot; a narrow blackish-grey subterminal band; hindmarginal space strigulated with blackish-grey, except on a round pale spot below middle. Hindwings beneath with colour, second line, and subterminal band as in forewings; a small grey discal spot.

Duaringa, Queensland; two specimens received from Mr. G. Barnard.

90. *Hyp. emiliaria*, Gn.

(*Hypochroma emiliaria*, Gn. ix, 280.)

“♂. 40 mm. Wings strongly toothed, mixed with flesh-colour and greenish-grey, irrorated with black, with the ordinary lines black, well-defined; second line of forewings followed by a broad charcoal-black space cut by the subterminal line, which forms interrupted flesh-coloured teeth. The black colour appears also at the base of all the wings, and in the hindwings extends along the three lower veins to their extremity. The hindwings have a series of raised crests not far from their base, and a lower crest along the abdominal margin, which is fringed with bright yellow hairs, as are also the sides of the abdomen. Undersurface white, with the

base of the hindwings broadly yellow, and a broad entire black border; forewings with an oval black discal spot. Abdomen depressed, densely haired on sides, with bifid crests."

The above description is translated from Guénée, who only quotes Australia as a locality; I have seen no specimen at all agreeing with it, but it would appear to denote a handsome and conspicuous species.

91. *Hyp. muscosaria*, Gn.

(*Hypochroma muscosaria*, Gn. ix, 281, pl. vi, 3; *H. emiliaria*, Walk. (nec Gn.) 441; *H. estraria*, Feld. pl. cxxv, 7; *H. squamata*, ib. pl. cxxvi, 14.)

♀. 40 mm. Head and thorax pale green, sprinkled with black. Palpi fuscous, towards base whitish, basal joint with a black apical dot, terminal joint moderate, rather slender. Antennæ ochreous-whitish, obscurely ringed with dark fuscous. Abdomen ochreous-whitish, sprinkled with black, without defined crests. Legs blackish-grey, ringed with ochreous-white, posterior pair whitish. Forewings broad, costa slightly arched, hindmargin crenate, rounded, rather oblique; 6 separate, 11 anastomosing with 12 and then with 10; pale whitish-green, mixed with white and irrorated with black; some tufts of raised scales towards base; lines slender, dentate, black; first from $\frac{1}{4}$ of costa to $\frac{1}{3}$ of inner margin, rather curved, sometimes preceded by a brown suffusion in disc; a transverse linear fuscous discal spot; second line from $\frac{2}{3}$ of costa to beyond middle of inner margin, upper $\frac{2}{3}$ moderately curved outwards; a pale dentate subterminal line, posteriorly more or less margined with fuscous, space between this and second line mixed with ferruginous and more densely irrorated with black; a hindmarginal series of black dots: cilia pale greyish-ochreous, slightly irrorated with black, base paler, tips white. Hindwings with hindmargin strongly crenate, rounded; 6 and 7 separate; colour and markings as in forewings, but first line obsolete, basal third of wing suffusedly mixed with ferruginous or fuscous; some transverse tufts of raised scales about $\frac{1}{3}$, and

second and subterminal lines somewhat roughened partially with raised scales. Under-surface of both wings ochreous-whitish, in disc white; a broad blackish-grey submarginal band, in forewings containing an incomplete subterminal series of white dots; discal spot black, in forewings rather large, oval, in hindwings transverse-linear.

Newcastle, Sydney, and Mount Kosciusko (2700 feet), New South Wales; in November and January, several specimens.

92. *Hyp. deteriorata*, Walk.

(*Hypochroma deteriorata*, Walk. 441.)

♂♀. 29-32 mm. Head and thorax mixed with light ferruginous-reddish and whitish; face with two black spots; patagia barred with black. Palpi blackish mixed with white and reddish, towards base whitish. Antennæ dark grey, pectinations 4. Abdomen grey-whitish, irrorated with black, and mixed with reddish. Legs dark grey, ringed with whitish, posterior pair whitish. Forewings broad, costa slightly arched, hindmargin rather obliquely rounded, waved; 6 separate, 11 anastomosing with 12 and then with 10; light fuscous-grey, closely mixed with light ferruginous-reddish and irrorated with black, and somewhat sprinkled with white; some raised scales towards base; lines blackish-grey, dentate; first from $\frac{1}{3}$ of costa to $\frac{2}{5}$ of inner margin, rather curved; an ill-defined blackish-grey transverse linear discal spot; second line from $\frac{2}{3}$ of costa to beyond middle of inner margin, upper $\frac{2}{3}$ moderately curved outwards; a cloudy whitish dentate partially interrupted subterminal line; a hindmarginal row of blackish dots: cilia light reddish, basal half barred with dark grey. Hindwings with hindmargin rounded, crenate; 6 and 7 separate; colour and markings as in forewings, but first line obsolete; some transverse tufts of raised scales at $\frac{1}{3}$. Forewings beneath pale whitish-fuscous, mixed with reddish beneath costa; a white discal

blotch, containing a round black discal spot ; a fuscous-grey hindmarginal band, darker anteriorly, containing a series of white dots. Hindwings beneath pale whitish-fuscous ; a small blackish discal spot ; a fuscous-grey hindmarginal band, darker anteriorly.

Sydney, New South Wales ; in October, several specimens.

93. *Hyp. erebata*, Walk.

(*Hypochroma erebusata* (rect. *erebata*), Walk. 443.)

♀. 50 mm. Head, thorax, and abdomen pale greyish-ochreous irrorated with black ; face black, somewhat tufted. Palpi grey irrorated with black, towards base ochreous-whitish. (Antennae broken.) Legs greyish-ochreous irrorated with black, posterior pair whitish-ochreous. Forewings moderate, costa slightly arched, hindmargin rather obliquely rounded, waved ; 6 separate, 11 anastomosing with 12 and then with 10 ; pale greyish-ochreous, closely strewn with short grey transverse strigulae, and with some scattered black scales ; some raised scales towards base ; lines cloudy, grey, ill-defined, interrupted ; first from $\frac{1}{3}$ of costa to $\frac{2}{5}$ of inner margin, rather curved ; a very oblique black linear discal spot, its lower extremity bent downwards, surrounded by a grey suffusion ; second line from $\frac{3}{5}$ of costa to $\frac{2}{3}$ of inner margin, upper $\frac{2}{3}$ moderately curved outwards ; a faint cloudy whitish dentate subterminal line, posteriorly margined with grey crescentic marks ; a hindmarginal row of black dots : cilia pale greyish-ochreous, irrorated with grey. Hindwings with hindmargin rounded, crenate ; 6 and 7 separate ; colour and markings as in forewings, but first line obsolete ; some transverse tufts of raised scales at $\frac{1}{3}$. Forewings beneath very pale whitish-ochreous ; a triangular white discal blotch, containing a large round black discal spot, and crossed by a curved fuscous line at $\frac{2}{3}$; a fuscous hindmarginal band, containing a series of small white spots. Hindwings beneath whitish ; a round black discal spot ; hindmarginal band as in forewings.

Duaringa, Queensland ; one specimen received from Mr. G. Barnard.

94. *Hyp. crenaria*, Gn.

(*Hypochroma crenaria*, Gn. ix, 278, Walk. 432; *H. distenta*, Walk. 434; *H. sublimbata*, Butl., Ann. Mag. Nat. Hist. 1882, 232; *H. paulinaria*, Pag., Jahrb. Nass. Ver. 1885, 47, pl. I. 1.).

♀. 42 mm. Head, antennæ, and thorax pale whitish-ochreous, face with a black bar. Palpi white, terminal joint long, slender, ochreous-tinged. Abdomen white, with a few whitish ochreous scales. Legs dark grey ringed with white (posterior pair broken). Forewings broad, costa slightly arched, hindmargin rounded, waved, somewhat oblique; 6 separate, 11 anastomosing with 10; white, irrorated with pale ochreous; first line slender, ochreous, from a grey mark on costa at $\frac{1}{4}$ to $\frac{1}{3}$ of inner margin, thrice angularly dentate; a long transverse linear grey or ochreous discal spot; second line slender, grey, mixed with ferruginous-reddish, more ochreous towards inner margin, from $\frac{2}{3}$ of costa to $\frac{2}{3}$ of inner margin, waved-dentate, tolerably evenly curved; space between second line and hindmargin more densely irrorated with ochreous and some reddish scales, sometimes greyer towards costa, except a cloudy dentate whitish subterminal line; a fine ferruginous sometimes interrupted hindmarginal line, tending to form dots with one or two black scales between veins: cilia white, with faint very pale ochreous-greyish bars. Hindwings with hindmargin rounded, crenulate, inner margin long; 6 and 7 separate; colour and markings as in forewings, but first line absent, discal spot ochreous, indistinct, second line more ferruginous, cilia not barred. Forewings beneath white, costa yellowish towards base; a narrow transverse black discal spot; a broad blackish subterminal band, connected with hindmargin above middle by an oblong patch. Hindwings beneath white, with subterminal band as in forewings.

Rockhampton, Queensland; two specimens. Occurs also in New Guinea and the adjoining islands, Ceylon, and India.

14. EPIPRISTIS, n.g.

Palpi moderate, porrected, shortly rough-scaled, terminal joint moderate or short. Antennæ in ♂ dentate or filiform, ciliated ($\frac{1}{4}$ -1). Thorax hairy beneath. Posterior tibiæ in ♂ somewhat dilated, grooved, all spurs present. Forewings with veins 3 and 4 separate, 6 separate or from point with 9, 10 out of 9, 11 anastomosing with 12 and then with 10. Hindwings with veins 3 and 4 separate, 6 and 7 separate.

95. *Ep. oxycyma*, n. sp.

♂♀. 25-32 mm. Head, antennæ, thorax, abdomen, and legs ochreous-whitish; face black; antennæ in ♂ filiform, ciliations $\frac{1}{4}$; anterior legs infuscated. Palpi white, terminal joint moderate. Forewings moderate, costa gently arched, hindmargin rather obliquely rounded; very pale whitish-ochreous, sprinkled with a few white and ochreous scales; lines slender, blackish, dentate; first from before $\frac{1}{3}$ of costa to $\frac{1}{3}$ of inner margin, more or less indistinct; a blackish discal dot; second line from $\frac{2}{3}$ of costa to $\frac{2}{3}$ of inner margin, curved; a very faint dentate whitish subterminal line, preceded below middle by a small pale ferruginous or ochreous spot; a hindmarginal row of black dots: cilia white. Hindwings with hindmargin rounded, waved, inner margin long; colour and markings as in forewings, but first line absent, subterminal preceded by faint ochreous spots above middle and towards anal angle. Wings beneath whitish, with a small blackish discal spot, and a suffused grey subterminal band.

Duaringa, Queensland; four specimens sent by Mr. G. Barnard.

96. *Ep. rufonigraria*, Walk.

(*Fidonia rufonigraria*, Walk. 1036.)

♂. 24 mm. Head, palpi, and thorax dark fuscous mixed with crimson. Antennæ pale grey, dentate, ciliations 1. Abdomen pale grey. Legs dark fuscous, ringed with white, posterior pair

grey-whitish. Forewings moderate, costa gently arched, hindmargin somewhat obliquely rounded, crenulate; rather dark purplish-fuscous; a sinuate transverse linear blackish-fuscous discal spot, mixed with crimson; second line obscurely darker, from $\frac{2}{3}$ of costa to $\frac{2}{3}$ of inner margin, curved, dentate: cilia purplish-grey. Hindwings with hindmargin rounded, crenate; colour and cilia as in forewings; a faint curved darker line beyond middle. Wings beneath grey, towards costa reddish-tinged; forewings with a suffused darker blotch on upper half of hindmargin, mixed with blackish anteriorly.

Sydney, New South Wales; in September, one specimen.

APPENDIX.

The following species, attributed to this family, I have not thought it necessary to include at present.

97. *Acidalia oppilata*, Walk. 776. The single specimen is in such poor condition as to be unidentifiable, being one of the obscure group of *A. recessata*.

98. *Acidalia despoliata*, Walk. 778. I could not satisfy myself that the type of this (which I formerly quoted as a synonym of *A. recessata*,) was truly referable to any species known to me; it may perhaps be an unrecognised additional species.

99. *Acidalia schistacearia*, Walk. 1609, is a species of *Dichromodes*, belonging to the *Oenochromidae*.

100. *Acidalia primaria*, Walk. 1610, is a synonym of *Idiodes apicata*, Gn. (*Boarmiidae*).

101. *Acidalia posticaria*, Walk. Suppl. 1633, is probably not of this family, but I have not been able to examine it critically.

102. *Idaea farinalis*, Ros., Ann. Mag. N.H. 1885, 402. This may or may not be an *Acidalia*; it does not seem to be sufficiently described, and I have failed to identify it.

103. *Hypochroma nyssiata*, Feld. pl. cxxv, 3, belongs to the *Bombycina* (*Liparididae*).

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SUPPLEMENT.

I add here a few new species and notes of additional localities for those families revised in my first paper. These additions are principally derived from my West Australian journey, and are remarkable for their scantiness; it would appear that West Australia possesses hardly any indigenous fauna of these families.

ARCTIADAE.

SYMMETRODES, Meyr.

Symm. sciocosma, n.sp.

(*Symmetrodes nitens*, Meyr., Proc. Linn. Soc. N.S.W. 1886, 703, nec Walk.)

I propose this name for the species which I identified from Walker's description as his *Lithosia nitens*; having since seen his specimens, I find the identification to be erroneous, as noted below.

TIGRIOIDES, Butl.

Tigr. nana, Walk.

(*Lithosia nana*, Walk. Bomb. 507; *L. nitens*, ib. Suppl. 231; *L. remota*, ib. Char. Het. 9; *Tigrioides nana*, Meyr., Proc. Linn. Soc. N.S.W. 1886, 698.)

The full synonymy of this species is as given here.

CALLIGENIA, Dup.

Call. melitaula, Meyr.

(*Calligenia melitaula*, Meyr., Proc. Linn. Soc. N.S.W. 1886, 705; *Mittochrista simulans*, Butl., Trans. Ent. Soc. Lond. 1886, 382.)

My name has three months' priority.

TERMESSA, Walk.

Term. zonophanes, n. sp.

♂♀. 29-31 mm. Head ochreous-yellow. Palpi and antennæ black. Thorax whitish-ochreous, anterior margin broadly blackish. Abdomen ochreous-yellow. Legs dark fuscous, posterior pair yellowish. Forewings elongate-triangular, costa gently arched, apex obtuse, hindmargin rather obliquely rounded; whitish-ochreous, margins more yellowish-tinged; costal edge black on basal half; a narrow rather irregular blackish fascia from about $\frac{1}{4}$ of costa to $\frac{1}{4}$ of inner margin, and another from before middle of costa to middle of inner margin, connected by a line on margins, and suffusedly confluent somewhat below middle; a broad inwards-curved blackish fascia from costa about $\frac{3}{4}$ to inner margin before anal angle, sometimes connected with preceding fascia by a bar in middle; a subtriangular blackish spot on upper half of hind margin, its apex touching middle of preceding fascia: cilia dark fuscous, above apex pale ochreous-yellowish, above anal angle broadly whitish-ochreous. Hindwings ochreous-yellow; a dark fuscous irregular fascia from costa near apex to about middle of hindmargin, thence along hindmargin to anal angle, narrow towards costa, more or less broadly dilated towards middle; a small elongate dark fuscous spot along hindmargin above middle; cilia ochreous-yellow, dark fuscous towards anal angle and opposite supra-median spot.

Wimmera, Victoria ; several specimens (Coll. Lucas). Nearest to *T. Shepherdii* ; in my tabulation it falls under the same heading with *T. gratiosa*, from which it is immediately separated by the entire fascia of hindwings.

SOROCOSTIA, Ros.

Tribunta scabralis, Walk. Suppl. 1507, appears to be a species of this genus, but is certainly not in a condition to be identified, and the name should be neglected.

Sor. biguttalis, Walk.

(*Tribunta biguttalis*, Walk. Suppl. 1507 ; *Sorocostia trigonota*, Meyr., Proc. Linn. Soc. N.S.W. 1886, 719.)

Identified from the original specimen.

Sor. hesycha, n. sp.

♂♀. 15-17 mm. Head and thorax white, thinly sprinkled with grey. Palpi 3, white, irrorated with grey on lower half. Antennæ, abdomen, and legs white. Forewings elongate-triangular, costa hardly arched, apex round-pointed, hindmargin slightly rounded, oblique ; white, densely irrorated with ochreous-grey ; a narrow clear white streak from $\frac{2}{3}$ of costa to disc before middle, anteriorly margined with darker irroration ; a similar streak from costa before apex to inner margin beyond middle, hardly curved inwards ; an indistinct parallel whitish streak near hindmargin on lower half : cilia white, irrorated with ochreous-grey. Hindwings and cilia white, apex sometimes greyish-tinged.

Geraldton and Carnarvon, West Australia ; in October and November, four specimens, mostly taken at light. Nearest to *S. irenica* ; in my tabulation it falls under the same heading with *S. parallacta*, from which it is at once distinguished by the white hindwings, and clear white lines of forewings.

Sor. albalis, Walk.

(*Hyppena albalis*, Walk. Suppl. 1143 ; *Eromene vetustella*, Walk. Suppl. 1763 ; *Nola strictalis*, Z., Zool. Bot. Ver. 1872, 459, pl. ii, 3 ; *Sorocostia vetustella*, Ros., Ann. Mag. N.H. 1885, 436, Meyr., Proc. Linn. Soc. N.S.W. 1886, 721.

In looking through the British Museum collection I noticed this earlier name, involving rectification as above.

Sor. aenictis, n.sp.

♂. 18 mm. Head whitish, irrorated with grey. Palpi $2\frac{1}{2}$, grey-whitish, irrorated with grey. Antennæ and abdomen grey-whitish. Thorax grey, anteriorly mixed with whitish. Legs whitish irrorated with dark grey, posterior pair ochreous-whitish. Forewings very elongate-triangular, costa rather strongly arched, apex obtuse, hindmargin obliquely rounded ; grey, thinly sprinkled with blackish ; a small black mark on costa near base ; two fine black lines, first from $\frac{1}{4}$ of costa to $\frac{1}{3}$ of inner margin, unevenly curved, once shortly dentate above middle, second from beyond middle of costa to beneath costa at $\frac{3}{4}$, thence slightly curved to $\frac{2}{3}$ of inner margin, irregularly dentate ; second tuft black anteriorly ; an indistinct irregularly sinuate darker grey subterminal shade ; a hindmarginal series of cloudy dark grey dots : cilia grey, sprinkled with dark grey. Hindwings very pale whitish-grey ; cilia grey-whitish.

Geraldton, West Australia ; one specimen in November. Nearly allied to *S. arachneis*, but forewings narrower, hindmargin more oblique, form of first line quite different, second tuft anteriorly black ; intermediate in character between *S. arachneis* and *S. cycota*.

Sor. tornotis, n. sp.

♂. 15 mm. Head whitish, sprinkled with ochreous, with a black mark on each side of forehead. Palpi 2, grey-whitish,

irrorated with ochreous and black. Antennæ and abdomen grey-whitish. Thorax grey-whitish, sprinkled with black, anteriorly irrorated with ochreous. Legs dark fuscous, apex of joints whitish, posterior tibiæ whitish. Forewings elongate-triangular, costagently arched, apex obtuse, hindmargin obliquely rounded; white, closely irrorated with greyish-ochreous and sprinkled with black; an obscure blackish strigula on costa near base; tufts pale ochreous anteriorly, second preceded by a blackish suffusion; two slender tolerably distinct black lines; first from $\frac{1}{4}$ of costa to $\frac{1}{4}$ of inner margin, rather irregular, curved; second waved, from a spot on costa beyond middle to beneath costa at $\frac{3}{4}$, thence to inner margin at $\frac{3}{4}$, somewhat bent in middle, rather sinuate inwards on lower half; a similar and parallel line, formed by a blackish irroration, close before second line throughout, except near costa; an irregular sinuate subterminal line, formed by a blackish irroration, tending to be interrupted into dots, dentate outwards beneath costa; a hindmarginal row of blackish dots: cilia white, irrorated with grey, basal half sprinkled with black, tending to form spots. Hindwings light grey, darker towards hindmargin; cilia light grey.

Duarina, Queensland; two specimens sent by Mr. G. Barnard. Intermediate between *S. cycota* and *S. leucoma*; in my tabulation it falls under the same heading with *S. cycota*, but is separable by the much shorter palpi, different form of second line, preceding additional parallel line, and other details.

SAROTRICHIA, Gn.

Forehead with flat projecting tuft of scales; tongue well-developed. Antennæ in ♂ filiform, very shortly ciliated ($\frac{1}{4}$). Palpi long, bent, porrected, clothed with dense rough scales above and beneath. Thorax crested posteriorly. Anterior femora and tibiæ densely tufted with rough hairs beneath; posterior tibiæ with dense tolerably appressed scales. Forewings with vein 2 from $\frac{2}{3}$, 7 connected by bar with 8, 9 and 10 out of 8. Hindwings with veins 3 and 4 stalked, 5 from point with or closely approximated to 3, 6 and 7 from a point or closely approximated, 8 from middle.

This genus, which has been variously placed, is certainly referable here, and is nearest allied to *Zia*. The name is usually written *Sarrothripa*, which is a meaningless barbarism; but since Guénée always formed his names etymologically, I confidently conjecture *Sarotricha* to be the right reading, (in allusion to the peculiar tufts of the anterior legs, characteristic of the genus,) and have restored it accordingly; as a critical emendation I consider it almost certain.

Sar. exophila, n. sp.

♂♀. 14-18 mm. Head, palpi, thorax, and legs white irrorated with dark fuscous. Antennæ and abdomen grey. Forewings elongate, suboblong, posteriorly rather dilated, costa strongly arched near base, slightly sinuate in middle, apex obtuse, hind-margin rounded, somewhat oblique; white, irrorated with dark grey, somewhat mixed with greenish, sometimes more or less suffused with grey; from two to four subdentate dark fuscous transverse lines more or less marked in basal area, sometimes partially suffused together; two parallel blackish lines from costa before middle to middle of inner margin, almost straight, somewhat indented beneath costa, first less marked; two minute black dots placed somewhat obliquely transversely in disc beyond middle; two parallel waved blackish-grey lines from $\frac{2}{3}$ of costa to $\frac{3}{4}$ of inner margin, rather curved outwards, sinuate inwards towards inner margin, second forming a triangular dark fuscous spot on costa; a shortly dentate blackish subterminal line, indented beneath costa and in middle; an interrupted black hind-marginal line, tending to form dots: cilia whitish, irrorated with dark grey. Hindwings fuscous-grey, much paler and whitish-tinged towards base; cilia white, basal half fuscous.

Duaringa, Queensland; four specimens received from Mr. G. Barnard, Nearly allied to the European *S. undulana*, but much smaller, distinguished by the white groundcolour, the two small discal dots, and the postmedian line of forewings not angulated inwards below middle.

XANTHODULE, Butl.

Xanth. semiochrea, Butl.

(*Xanthodule semiochrea*, Butl., Trans. Ent. Soc. Lond. 1886, 384, pl. ix, 1.)

In the absence of material, I cannot add anything to Butler's description, but this appears to be a good genus and species, referable to the neighbourhood of *Chiriphe*.

SPILOSOMA, Stph.

Spil. fuscinnula, Dbl.

The original authority for this name is Doubleday, who described it as *Chelonia fuscinnula*, Eyre's Discoveries, I, 438, pl. v. 4; I am indebted to Mr. Kirby for this reference, omitted by Walker.

Spil. Glatignyi, Le G.

(*Spilosoma Glatignyi*, Le G., Rev. Zool. 1841, 257; *Chelonia pallida*, Dbl., Eyre's Disc. I, 438, pl. v, 3; *Ardices fulvohirta*, Walk. Bomb. 710; *Spilosoma subocellatum*, ib. 1697; *S. conferta*, ib. Suppl. 295; *S. fulvohirta*, Meyr., Proc. Linn. Soc. N.S.W. 1886, 754).

The above is an earlier name for this species, with the full synonymy.

DEIOPEIA, Stph.

Deio. pulchella, L.

Also from Carnarvon, West Australia, in October.

ZYGAENIDAE.

HESTIOCHORA, Meyr.

Hest. rufiventris, Walk.

Also from Geraldton, West Australia, in November.

PROCRIS, F.

Procr. amethystina, n. sp.

♂ 18-19 mm. Head, palpi, thorax, and abdomen brilliant metallic green-blue, somewhat mixed partially with black. Antennæ black, pectinations 5. Legs black, femora and posterior tibiæ metallic blue. Forewings elongate-triangular, costa slightly arched, apex rounded, hindmargin very obliquely rounded; purple-blackish, sprinkled with metallic green: cilia blackish, tips pale grey. Hindwings elongate-ovate; blackish; disc thinly scaled, semitransparent; vein 4 absent, 3 and 5 tolerably approximated at base.

Perth, West Australia; two specimens, in November. Nearest to *P. cyanota*.

Procr. empyrea, n. sp.

♂ 18 mm. Head and thorax dark bronzy-fuscous, mixed with brilliant metallic coppery. Palpi black. Antennæ black, pectinations 5. Abdomen metallic-green, somewhat mixed with blackish, towards base coppery. Legs black, femora and posterior tibiæ bronzy-green. Forewings elongate-triangular, costa hardly arched, apex rounded, hindmargin very obliquely rounded; blackish, with a few coppery scales: cilia grey, basal third blackish. Hindwings elongate-ovate; blackish; disc thinly scaled, becoming semi-transparent towards base; vein 4 absent, 3 and 5 approximated at base.

Albany, West Australia; one specimen bred in November. Intermediate between *P. cyanota* and *P. subdolosæ*. The larva is clothed with dense rather short hairs; reddish-brown; dorsal line white: found full-grown on a fence early in October, without indication of food-plant; it spun a rather dense cocoon.

Procr. cuprea, Walk.

Also from Geraldton, Perth, and York, West Australia; in October and November, abundant. In some places (especially on the eastern slope of the range towards York) this species varies

into a bronzy-green form, and is then with difficulty distinguished from *P. viridipulverulenta*; the forewings appear to show an indefinable yet perceptibly darker hindmarginal fascia, dilated towards costa, which is the best distinguishing mark of the species, but I should not be surprised if intermediate local forms were to be found presenting a complete gradation to the eastern *P. viridipulverulenta*.

NOTE.—*Themiscyra laetifera*, Walk., and *Cyptasia egregiella*, Walk., which are mentioned in the Appendix as unidentified, I have since seen and recognised to be species of *Tineina*; they may therefore be omitted from this group. *Cyptasia cristata*, Butl., Trans. Ent. Soc. Lond. 1886, 383, referred by Butler to the *Lithosiadae*, is also a species of *Tineina*.